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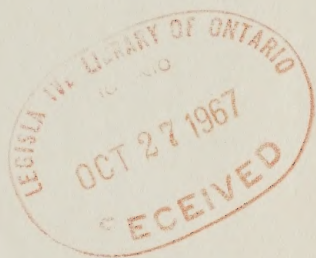


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Plan
of the group of Islands
RUMANZOFF,
the center of which is in $56^{\circ} 27'$ N. Lat.
and $100^{\circ} 27'$ E. Long. W. of Greenwich.
Declaration of the Noodle-Hall Edition



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VOYAGE OF DISCOVERY

IN

THE SOUTH SEA,

AND TO

BEHRING'S STRAITS,

IN SEARCH OF

A North-east Passage;

UNDERTAKEN IN THE YEARS 1815, 16, 17, and 18,

In the Ship Rurick.

BY OTTO VON KOTZEBUE.

PARTS.

LONDON:

PRINTED FOR SIR RICHARD PHILLIPS AND CO.

BRIDE COURT, BRIDGE STREET.

1821.

VOYAGE OF DISCOVERY

THE SOUTH SEA,

AND TO

RENNELL'S STRAITS,

IN SEARCH OF

A North-east Passage;

UNDER THE COMMAND OF CAPTAIN JAMES COOK,

IN THE SHIP *HMS Endeavour*.

BY OTTOFON ROTHEBUR.

PART II.

LONDON,

PRINTED BY J. JOHNSON, ST. PAUL'S CHURCH-YARD.

1781.

KOTZEBUE'S

VOYAGE ROUND THE WORLD.

JANUARY 22d, 1815.—THIS afternoon, at three o'clock, I bade farewell to my native town, REVAL, and proceeded on my journey to Abo, at the head of my crew, consisting of Lieut. KORDINKOFF and twenty sailors. I had been permitted by government to pick out the best men, as more volunteers than I wanted offered to venture everything with me. The men were in excellent spirits, singing and playing till we arrived at the halting-place.

On the 31st of January we arrived at St. Petersburg, when I gave my men some days' rest. Here Lieut. Schischmaref, whom I had selected for this expedition, joined us; and here I paid my respects to the patron of the undertaking, COUNT RUMANZOFF, who treated me with kindness and distinction, which increased my courage against all impending difficulties.

On the 17th of February we left St. Petersburg, and, after a severe march, arrived in Abo on the 19th. Here I, as well as my officers and poor sailors, were quartered in some small decayed huts, where there had been no fire during the whole winter, and which seemed to have been used for fowl-roosts. In vain I expostulated with our landlord; he shrugged up his shoulders, saying, "For Russians, they are good enough;" and it was not till some weeks after that we obtained better quarters.

Here our ship, named *Rurick*, was building; and, till the 11th of May, we had nothing to do but to inspect the progress of the work. On that day she was launched, after having been consecrated by a Russian clergyman. The war-flag was then dipped into the water, under the sound of kettle-drums and trumpets, and the shouts of thousands. This flag, I must here observe, the emperor had granted me on my representing that a voyage of discovery under the merchant's flag might be exposed to inconveniences and even impediments.

On the 23d of May we sailed from Abo for Reval, where we arrived on the 26th. Here we took in our stock of spirits, and Capt. Krusenstern brought me the necessary astronomical instruments, together with two chronometers, that had been made in England expressly for this expedition, and on which, therefore, as is proved by the sequel, we could perfectly rely.

On the 16th of June, we sailed from Reval, and on the 18th moored in the road of Cronstadt, in the harbour of which city we completed our preparations for the voyage.

July 27th.—The ship is now in complete order, and victualled for two years. We shall leave the harbour to-day. Dr. ESCHSCHOLTZ and the draughtsman, CHORIS, who are to accompany us on our voyage, are expected on-board by to-morrow. Our whole crew consists of two lieutenants, (Lieut. ZACHARIN has taken the place of Lieut. KORDINKOFF, who remained ill in Reval), three mates, two non-commissioned officers, twenty sailors, the physician, and the draughtsman. In Copenhagen, we are expected by Messrs. CHAMISSE and WORMSKLOID, who are to accompany us as naturalists.

On the 23d of July Count Rumanzoff, accompanied by Capt. Krusenstern, came on-board, and were soon followed by Adm. MOLLER, commander-in-chief of Cronstadt and Adm. KOROBKA. The Count was well pleased with the ship, which, however, he thought too small, it being only of 180 tons; but a ship of so small a size had the advantage that we might get very near the coast for the purpose of surveying. The internal arrangement is very comfortable for the officers as well as the men, having allotted much space to them, from a conviction that on this the health of the whole crew very much depends. The *Rurick* has two masts and eight guns, viz. two three-pounders, two eight-pounders, and four twelve-pounders. When the Count, after having taken leave of us, had left the ship, we saluted him with thirteen shots and three cheers.

At five o'clock in the morning, on the 30th July, we left Cronstadt with a fresh breeze from N.E.; and on the 9th of August we dropped anchor in the roads of Copenhagen, opposite the fort. On the same day, I was introduced to Messrs. Chamisso and Wormskloid, who I requested would get their luggage on-board as soon as possible, as the advance of the season would not admit of delay.

On the 13th of August we were visited by the Russian and several of the foreign ambassadors, and Adm. LEWENER, all of whom expressed their satisfaction at the arrangement of the ship. Knowing, from experience, the difficulty in the office of cook in hot climates, I looked out here for one who had already made

the voyage to the East Indies. I found a West Indian, who I engaged, and who has happily survived the voyage, although he had been constantly exposed to the heat of the fire, even under the equator.

At four o'clock in the morning of the 17th of August we left Copenhagen, but, the wind having sprung round to the west, we were obliged to drop anchor at eight, before Helsingor. In Copenhagen I found that my chronometers had much altered since I left Cronstadt. In St. Petersburg they had been observed by the astronomer SCHUBERT, who found, on the 20th July, the chronometer *Hardy* was too late, by the mean time, by 2h. 8' 39".54; the daily loss 2' 18" of chronometer *Barand*, by mean time too soon 3h. 20' 31".6; gained daily 86". In Copenhagen we found that *Barand's* lost 18", and *Hardy's* 21". Such a variation made me doubt their accuracy, but I afterwards found that I had no reason to complain of them.

From Copenhagen to Plymouth.—On the 18th we had a storm in the night. On the 19th, at ten in the morning, the wind blew from the south, and we sailed in company with a number of merchantmen.

On the 1st of September we sailed through the straits of Dover, and on the 7th we dropped anchor before Plymouth, in Chathwater. I had selected this port, because with a fresh wind we might have reached the ocean in one day.

I immediately waited on Admiral Morley, the port-admiral, who promised me every assistance. I also saw the Russian consul, Mr. HAWKER, for whose exertions in providing me with every necessary article, I feel much indebted.

On the 8th I obtained permission of the admiral to bring my instruments to Mount Batten. On the following day we erected a tent there, and set about regulating our watches. On the 15th I received a life-boat which the British government had destined for the *Rurick*. It was too large for our ship, and the whole crew could scarcely lift it upon deck; for which reason I was obliged to leave it in Kamtschatka.

On the 25th we heaved anchor; but we had not left the bay before the wind changed into S.W. With difficulty we got out of the bay; but in the night we had a violent storm, which did much damage to our tackling, and one of our best men was severely hurt. At day-break we found ourselves at the entrance of the bay, and we anchored again on the same spot which we had left the day before. Here we quickly repaired our damages, and sailed again on the 30th, with a northerly wind. We had scarcely left the bay, when it sprung round, into S.W. and, turning again into a storm, I was compelled to enter the bay a

third time, when we anchored behind the new pier. At last, a constant northerly wind arose on the 4th of October, and at ten o'clock in the morning we were under full sail. Chronometer Baraud loses 2".5, and Hardy 49".0.

From Plymouth to Teneriffe.—On the 6th we entered the Atlantic; and now only I thought my voyage had begun: the unpleasant preparations had vanished, and I felt myself full of courage and strength to encounter what lay before me.

We had stormy weather till the 14th, when, with a northerly wind, the weather became fine. At noon we had reached lat. $39^{\circ} 32'$, long. $13^{\circ} 3'$, and we now found a great change in the temperature of the atmosphere, and $74\frac{3}{4}$ Fahren. warmth. On the 21st we crossed the latitude of Gibraltar, and found that the current had carried us, within two days, twenty miles (geographical, sixty to a degree). On the 23d, at noon, the latitude was $30^{\circ} 36'$, long. $15^{\circ} 20'$. We had a complete calm; the sea was covered with red locusts, two inches long, several of which we caught. Our naturalists maintained that they came from Africa, probably carried away by storms: they found their grave in the sea; for, being at a distance of 2400 miles, a flight of such a length was improbable. On the 25th we saw the *Salvages* from the mast-head, in W.S.W.; and, to my great joy, the chronometers gave their longitude correctly, which proved their exactness. On the 27th we saw the Peak of Teneriffe, about 100 miles distant; and on the next morning, at 11 o'clock, we anchored before the town of St. Cruz. We were immediately visited by the Port-captain, Don Carlos Adan, who had before occupied this post when Capt. Krusenstern was here, and had shown him great attentions. For the *Rurick*, too, he did what laid in his power, and I feel myself called upon to acknowledge it publicly. My first walk was to the governor, (whose name I unfortunately forget,) who received me very politely, and promised me his assistance in every thing. This gentleman has been long in Russia, and seems much attached to the Russians. He has fought with them against the Swedes, as a Spanish colonel, on the flotilla, in Biorca, and received the order of St. George, fourth class, as a mark of his valour from the empress's own hands. He invited me for the next day, and I went to Mr. Coluguan, to whom my letters of credit were addressed. This hospitable gentleman was out of town, and his clerk promised to supply us with the wines that we wanted, within two days. In the mean time, the kind port-captain assisted us with his people to get our supply of water on-board. The naturalists went to Oratava, on which journey they hoped

to make a rich collection. On the 29th I dined with the governor, and presented him with a copy of Krusenstern's Atlas, with prints, which he admired the more for having been engraved in Russia, and said he would send that beautiful work to his king. On the 30th we were supplied with every thing. Our wine was of two sorts, at thirty and at thirty-eight pounds sterling the pipe, and the former was said to be the best on the island. During our stay the crew ate quantities of fruit and vegetables, and we took a large supply of them with us.

From Teneriffe to St. Catherine.—It would be superfluous to give a description of Teneriffe, which has been so often described; and our stay there was too short to make any interesting observations.

On the 1st of November we left St. Cruz with a fresh breeze from north-east, but, as the wind soon became lowering, we were obliged to tack about between the islands of Teneriffe and Canary. The following morning we were on the spot where there is supposed to be a rock between the two islands; but as we sailed several times to and fro between them, I am almost of opinion that it is a mere supposition.

On the 3d we had reached the trade-wind, and at noon we had nearly lost sight of the Peak. In the vicinity of the islands of *Cape Verd* our crew were attacked by violent pains in the head and stomach; the air was very sultry, and the thermometer never fell under 77° Fahren. The sickness, however, soon gave way to the skill of our physician, and entirely disappeared after we had left these islands. At noon we passed the latitude of the island of St. Antonio, at a distance of 35 miles, without seeing it. During the night twenty-five flying fish had fallen upon deck, of which we made an excellent dinner. These fish frequently fall on small ships, which, like ours, do not project higher from the water than they fly when they are pursued by their enemies; sometimes, too, they beat with great violence against the sides of the ship, and, stunned by the blow, fall back into the water. Not having seen the isle of St. Antonio, I directed my course within sight of the isle of Brava, the southernmost of the islands of Cape Verd, in order to try my chronometers. A fresh trade-wind quickly brought us forward.

On the 10th, at noon, we discovered the island projecting between the clouds, at a distance of 20 miles. My chronometers gave its longitude by 10' more easterly than they are on Horsburgh's chart, and I have reason to believe that mine is more correct, since the frequent observations which we made before and afterwards always proved the exactness of the chronometers. On the evening of the 4th, we sailed by the island of Brava, without losing the trade-wind. The island is high,

and in the west rises almost horizontally from the sea: it is covered with a rich green verdure, and offers a delightful prospect to the navigator. We saw near the shore a quantity of large and small fish sporting in the water, which prove that the island has also a plentiful supply; even flying-fish are here numerous, several having accompanied us from Cape Verd, and we had some daily falling upon, or flying over, the deck; one flew so near the officer on the watch, that it struck his nose with its wing.

On the 13th of November, under lat. $9^{\circ} 52''$ and long. $20^{\circ} 52''$, we lost the trade-wind; and we were now under changeable winds, which delayed us for several days together, with calms, rains, thunder-storms, and violent squalls. Notwithstanding, our crew were in good health, having none on the sick list.

On the 16th, in lat. $70^{\circ} 31''$, long. $20^{\circ} 82''$, we saw three cranes; one of them was so exhausted that she fell in the water, the two others fluttered round her, and thus lost themselves. On the same day, a small land-bird perched on the ship. The nearest land lay $5\frac{1}{2}^{\circ}$ from us, and it is astonishing how so small a bird could perform so long a journey: we may conclude from it that we cannot always calculate upon a near land from seeing such a bird.

On the 18th, in lat. $6^{\circ} 48''$, long. $20^{\circ} 28''$, we had the real S.E. trade-wind, yet so much from the south that we were obliged to keep a very westerly course.

From the island of Cape Verd, the current had driven us daily for several miles to the S.E.; to-day it changed its direction, driving the ship forcibly towards the west. We also sailed over the spot where Warleis-bank is said to be situated, without perceiving any thing extraordinary; which makes me doubt its existence. On the 21st we spoke to the East-Indiaman *Bombay*, coming from Bombay to England. Two officers came on-board of us, and we compared the longitudes of our chronometers, and found only $2'$ difference: the English having begun theirs at St. Helena, there could be little variation from the true latitude.

On the 23d, at eight o'clock in the evening, we crossed the equator. In the morning we commenced our preparations for the solemnity of the day. Towards the evening, after the ship had been well scoured and every thing put in order, she was profusely illuminated; the officers and men put themselves in their best dresses, and the passage from one hemisphere into the other was waited for in solemn silence: on the stroke of eight, the flag flew up, the southern hemisphere was saluted with eight shots, and we drank to a prosperous voyage in our best

wine, and the sailors in good punch. This being done, Neptune bade us welcome in the south, and baptized every one who had touched the equator for the first time, myself being the only one exempt from this ceremony. The merry-making was kept up till a late hour. Half a degree to the north, and even under the equator, we found the current to the N.W. $86^{\circ} 47''$ in twenty-four hours.

On the 1st of December, in lat. $14^{\circ} 40'.5$, long. $33^{\circ} 30''$, we lost the trade-wind; a fresh breeze, accompanied by rain and frequent squalls, blowing from the north. Our second lieutenant, *Zacharin*, having been sickly since we left Teneriffe, I fear that the voyage will prove injurious to him.

On the 3d, lat. $18^{\circ} 10''$, long. $35^{\circ} 22''$, we lanced three bonitós, which were very acceptable, having for some time past been without fresh provisions. To complete the treat, I had a cask of sour-cROUT opened, with which we had been provided by the American Company in St. Petersburg, and which we yet found in a perfectly good state. In the evening, we had a play: at noon a bill was posted up on the head-mast, in which the Country Wedding was announced. The sailors had composed the play among themselves, and performed it to the general satisfaction of the spectators; the performance was concluded by a Ballet, with general applause. Some may think such amusements ridiculous in a discovery-ship; I, however, am of opinion that on-board every thing ought to be done to keep the crew in a cheerful disposition, and to make them thus pass over the difficulties of such a wearisome service; besides, cheerfulness will have its salutary effect upon the bodily frame, since a cheerful man is, generally speaking, the healthiest. On Sunday we had regularly something particular before us: the sailors amused themselves for some days previously with their plans and preparations, and afterwards they had a rich stock for conversation and amusement. On that day their table was also better served, and the allowance of spirit was doubled.

On the 6th, we were in the vicinity of *Cape Frio*, the latitude of which I was to have determined, according to my instructions; but, the continued dull weather rendering this impossible, we steered toward the island of St. Catherine. The next day we noticed upon the water a serpentine line of a dark-brown colour, of the breadth of a couple of fathoms, and extending as far as the eye could reach. At first sight, I took it for a shallow; yet, when a boat was let down, from which it was examined by Mr. Wormskloid, who brought some of this water on-board, we found that the line was formed by an innumerable multitude of small crabs, and the seed of a plant,

which, according to our naturalists, grows at the bottom of the sea.

On the 10th, off the island of St. Catherine, we were assailed by a storm, which lasted the whole day. On the 12th we appeared off St. Cruz, and anchored nearly on the same spot where the *Nadeshda* had lain twelve years ago. We had scarcely cast anchor, when a sergeant of the fort of St. Cruz came on-board, and, in the name of the commandant, put the usual questions to us. The next day, I went to the town *Nostro-Senora-Dudesterro*, which was situated a few leagues from our anchorage, to pay my respects to the governor, Major Louis Mauricia de Selveira. He received me coolly, and did not seem inclined to obey the commands which he had received from Rio Janeiro, to assist the *Rurick* as much as was in his power. But the port-captain, S. Pinto, a very obliging gentleman, promised to satisfy all our wants, as soon as possible. I dined with Mr. Chamisso at S. Pinto's country-seat, situated in a most delightful spot; which, after the fatigues of the sea, afforded us much enjoyment. In the evening I again went on-board, making every preparation to pitch a tent on shore the next day, and to have the instruments taken there. It was placed on a small eminence, under palm and banana trees, so that we could see our *Rurick*; woody hills rose in the background, and we had various walks under the fragrant shade of lemon and orange trees. The country along the shore is inhabited by soldiers of the militia, who only serve in case of necessity, and are besides engaged in the cultivation of rice and sugar. The houses are at a considerable distance from each other, and the wealth of their owners is calculated according to the number of their negro slaves; who, like the members of the family, work with their masters, and enjoy whatever the house affords. In town, however, the negroes are very unfortunate; they are employed in hard labour, like beasts of burden, particularly in beating the husks from the rice, for which they are made to use clubs so heavy that they can scarcely lift them up; the whip frequently quickens them in their labour when their strength fails, and for which they are but miserably fed. By this inhuman treatment, they have actually sunk to the level of beasts; they seem to be quite incapable of reflection or feeling; their appearance is horrid and pitiful. The most offensive epithet with the Portuguese is *black man*! The slaves of the soldiers are quite different beings; they enjoy themselves; and we had every reason to be pleased with our neighbours, who treated us in a friendly and hospitable manner. The soldiers think themselves very poor, not having received

any pay for several years : they are certainly without money, yet they are never without the necessaries of life, with which the land furnishes them ; and thus I think them rich and happy. I went to live in a small house, belonging to a soldier's widow, and I now stayed on shore to regulate my chronometers. The evenings we devoted to recreation ; the good-natured inhabitants used then to assemble round our tent ; a couple of flutes and violins increased the mirth and invited dancing and singing, and we had frequent opportunities of admiring the skill with which the girls danced the *fandango*. Immediately after sun-set, the air is here filled with an innumerable quantity of shining beetles, which have the appearance of fiery sparks ; the great grasshoppers too begin to chirp ; and frogs, as large as hedge-hogs, come forth from their holes, and, as it were, bark like dogs. Near our tent flows a rivulet with very good water, with which we filled our casks. We attempted to fish near the shore, and always drew up a full net ; we often found remarkable aquatic animals in them, which were very well known to our naturalists. Ships that are going round Cape Horn will do well to touch at the island of St. Catherine, in preference to Rio Janeiro ; as the provisions are cheaper there, the climate better, and there is an advantage in being nearer Cape Horn. They grow here excellent coffee, and every inhabitant has a coffee-grove near his house ; yet the trade, although now open, is inconsiderable, since only a few ships come here.

On the 26th, we again took our instruments on-board, and found every thing in order. On the 28th, we set sail, with a gentle land-breeze. We perceived, with some gratification, that the inhabitants regretted our departure. My sailors, whom I had ordered on shore every day, to strengthen themselves for the voyage, had feelingly acknowledged the friendly reception of these people, and behaved themselves with propriety, so as to acquire a good character as Russians. I had a copper-plate, with the name of the ship and the date, fixed to the house where I had lived ; by which the landlady felt herself much flattered. Chronometer, Baraud's, lost now, in 24 hours, 4".4, and Hardy's 49".5. Lieutenant Zacharin had so far recovered that he again entered on service. The men were all well, with the exception of the locksmith.

From St. Catherine to Conception.—On the 31st of December, lat. 34 deg. 10 min. S., long. 48 deg. 3 min. W., we saw three large tortoises ; a remarkable sight at so great a distance from land. Up to the 10th of January, 1816, lat. 45 deg. 46 sec., long. 57 deg. 2 min., nothing happened that deserves notice ; wind and weather were favourable, till the proximity of Cape Horn was announced by violent gales, which assailed us for six

days ; that of to-day was particularly violent ; one wave, which came over our stern, did us great damage, and I nearly lost my life by it : I had been lying on a hen-coop, without suspecting any danger, when this wave washed me, with my bed, completely overboard. I should have been irretrievably lost, had not a quantity of rope, the end of which was fixed to the ship, been carried down with me, in which I was caught as in a net. I was much stunned, but recovered at the time my net was about to separate, and had just time enough to climb again upon deck. The hen-coop, with the pillow on which I had lain, swam with forty fowls alongside the ship. I thanked God for my preservation, willingly submitting to the loss of our fowls, those in the other two coops having also been killed, by the violence of the wave. When I had quite recovered from my fright, I saw what destruction the wave had committed ; the whole railing on the side where I had lain was broken, and the gun thrown on the other side ; happily no one was near it. The sea had forced its way into my cabin, and I dreaded the loss of my books and instruments ; before I went down I had the breach nailed up with boards, to prevent a second wave entering it. The helm we found disabled for the moment, yet capable of being repaired ; some sailors had been slightly hurt, particularly the man who stood at the helm. When I entered the cabin, I found that the water had not touched the instruments ; it had forced its way into the hold, and had caused great spoliation, by dissolving a considerable quantity of our best biscuit, a loss which we could not replace. The water had also penetrated into the powder-room, and damaged a great part of the ammunition.

On the 16th January, lat. 49 deg. 5 min., long. 63 deg. 31 min., a fresh breeze from the north, with fine weather, brought us quickly near Cape Horn ; at noon we sounded, and found 60 fathoms of water, over a ground of grey sand. At eight o'clock in the morning of the 19th, we saw Cape St. John at a distance of 40 miles ; at noon, the weather being very fine, we saw the horrid Staatenland. Cape St. John lay S.W. from us, at a distance of 12 deg. 25 miles. The current turned rapidly to E.N.E. Towards midnight we had doubled Staatenland ; the wind blew a gale from the north ; I steered my course S.S.W., to keep, for the sake of security, off the land ; and took then, contrary to the practice of other navigators, a more western course, in order to double Cape Horn as sharply as possible. On the 22d, at four o'clock in the morning, we cut the meridian of Cape Horn, in lat. 57 deg. 33 min. S., and had evidently gained much by not having gone so far south as others. We were here surrounded by whales, dolphins, and

abatrosses. While we were doubling Cape Horn, we were assailed by strong gales from S.W., which continued for several days, and we only succeeded to-day, the 1st of February, in passing the latitude of Cape Victory. In the evening of the 11th, we discovered the northern coast of Conception, near the island of St. Maria. We laid by, and at day-break we steered towards the bay, of which I give no account, it having been sufficiently described by La Perouse. The navigator may calculate upon finding, within a distance of two degrees of this coast, in this latitude, as well as a few degrees farther to the south, the finest and brightest weather, and a southerly wind, in this season; whilst, on the other hand, farther west, he will find dull weather and northerly winds. I would, therefore, advise those who intend to sail up this coast, to approach it almost as low as the 42d degree, because they will then accelerate their voyage. But this is only meant for the summer season; in winter, northerly winds are prevalent here.

At 3 o'clock in the afternoon we were in sight of Talcagnana, before which we saw three merchantmen at anchor. We shewed our flag, and asked a pilot, by firing a gun and shewing another: very soon a boat came from the town, but would not venture near enough for us to understand what they said to us; they made several signs, which we understood as little, and returned to shore when the night came on. This fear, we understood afterwards, was produced on account of the pirates, who frequently come here from Buenos Ayres, and commit great depredations on the coasts. We tacked about till it had grown dark, and then dropped anchor, in 12 fathoms water, on a clayey ground, 30 miles from Talcagnano. On the 13th, at day-break, the watch discovered a boat near the ship, from which we were hailed, but could not understand what they said; however, we answered, "Russians, friends of the Spaniards!" at last the people resolved to come on-board, and were astonished to find Russians, who had never yet visited this port.

There were many whales in the bay of Conception, that spouted their fountains close by us; one of them was bold enough to lean against the Rurick, about a foot under the surface of the sea, so that we could look at him leisurely, and notice his breathings. Having now a pilot on-board, we heaved anchor, and, in a couple of hours, we dropped a quarter of a mile from shore, in $4\frac{1}{2}$ fathoms of depth, upon a clayey ground. Immediately the commandant, Don Miguel de Rivas, with his aide-de-camp, came on-board, asking to what nation we belonged, (the Russian war-flag being quite unknown here,) and his surprise was visible when he heard that we were Russians;

but he soon became very friendly, and paid some high compliments to our nation. I presented him with the letter of recommendation of the Spanish minister in London, and he immediately offered to satisfy all our wants, if I would but name them. He offered to send a courier to the town of Concepcion, which is two leagues from this place, to inform the governor of our arrival, and left us with an invitation to an evening-party. We accepted it, and found a large company of ladies and gentlemen, with music and dancing, and we spent a very happy evening. Experience only can give an idea of the feelings of a sailor at such a change of scene.

I must here mention some customs that particularly struck me, and which may embarrass a stranger. In the dancing-room, on an elevation of two feet high, were placed benches covered with scarlet cloth; on these were seated gentlemen and elderly ladies only; the young ladies sat on the steps at our feet, and I was quite confused when I saw a handsome young lady, dressed in satin and hung with diamonds, sitting at my feet; but, when I observed the other gentlemen enjoyed the same distinction, I became more composed. The Paraguay-herb, or rather the leaves of the tree *lan*, are, as is well known, used in the greater part of the Spanish possessions of America as tea, (in Chili the annual consumption amounts to 1,000,000 dollars); the custom, however, of presenting this tea in a silver vessel with a tube, from which each of the company takes a few draughts and then passes it, is perhaps not so well known. When it came to my turn, I thought it my duty to imitate my predecessors, however difficult I found it to overcome a certain disgust, being about the twentieth who was to suck from this tube; yet I had scarcely touched it with my lips, when I withdrew them again much burnt; and I recommend all those who may have to take tea in this way, to place the tube between their teeth. The taste of this plant, however, is not unpleasant; it is boiled with sugar, forming a sweet aromatic juice, and then kept hot in this vessel upon charcoal. The Chilians are very fond of preserved fruits; at a party there are always some of them handed round, accompanied by a glass of water, it being a practice with them to drink after eating sweets.

On the 14th we were welcomed by the aid-de-camp of the governor, who was to visit us himself the next day: the order to furnish me with the best house in Taliagnano was already given. In this he acted by the command of his king, who had ordered him to give the Rurick a cordial reception. On the 15th, at ten o'clock in the morning, the guns of the fort announced the arrival of the governor, Don Miguel Maria d'Al-

tero, and he soon came on-board the *Rurick*, in company with some interesting ladies from town. I received him with the honors due to his rank, and he made us every offer of his services.

On the 16th we took our instruments on shore. I was quartered in a pretty house, with a garden, where I could try my chronometers conveniently. In the mean time, Lieutenant Schischmareff undertook the repairs of the ship, and our naturalists found sufficient employment in this beautiful country.

On the 25th we went to a fête, which the governor gave in honour of our arrival: we rode out early in the morning, to avoid the heat. In this little trip we had an opportunity of admiring the richness of the country; notwithstanding the idleness of the inhabitants, they reap the hundredth grain, and we often came through groves, where the most beautiful tropical fruits grew without any cultivation. We were received with military honours; the governor was in full uniform, and took us to the palace. The company was most select. We drank the health of Alexander I. and Ferdinand VII. The table was served as is usual in Europe on such occasions; the ice, which was here in profusion, and which the governor had brought with great difficulty from the Cordilleras, was particularly grateful to us. In the evening we had a ball, in which many well-dressed ladies appeared, who were more numerous than the gentlemen. The Chilians receive their fashions from Paris; the ton of society is decent and unrestrained. We stayed another day, to assist at a ball of Colonel Reyes. Of the city of Conception nothing remarkable can be said; it is built on a regular plan, but has few handsome houses; in lieu of those there are several churches and convents. The size of the city may be estimated by the number of its inhabitants, which amounts to about 10,000. The broad river of Bribó, upon which it is situated, is a great acquisition to it. Beyond the river the Spaniards have no other possessions: the country is inhabited by the Araucans.

On the 29th our locksmith died, after a long illness, which he had concealed on my engaging him, for fear of being refused.

Every navigator who touches at this place ought to recommend sobriety to his people, with regard to the wines. Among the many public-houses that are in Talcahuano, there were some where they mixed among the wine the juice of an herb unknown to us, but which produces the most dreadful effect of placing people in a situation bordering on madness, which is followed by great dejection. Probably they give this intoxicating liquor that they may plunder strangers with greater ease, since its effects appear almost instantaneously. The inhabit-

ants of the town consist, for the most part, of a mixed race of Spaniards and Araucans, who, not choosing to work, try to get a livelihood by such unjust means.

On the 3d of March we had a large company from Concepcion. They arrived early in the morning, before the heat became excessive; most of them were on horseback, the usual mode of travelling here, even for ladies, who ride the most spirited horses. Others rode in small boxes (houses) fixed upon a carriage of two wheels, which is drawn by two oxen, and guided by an Araucan, who sits on the roof of the box. The pretty elegant ladies that are skipping out of these singular vehicles form a striking contrast with them. In the evening I gave them a ball. My house, however, being too small for this purpose, I fitted up a warehouse, which lay at the end of the garden, for a dancing-room. Two rows of pillars, by which the building was supported on both sides, were surrounded with boughs, which formed a roof of verdure; both the garden and dancing-room were illuminated with lamps, and at the entrance of the latter was a transparency, representing the initials of our Emperor Alexander I., over which a flying Genius held a laurel wreath. In the back-ground another transparency represented the alliance of the two monarchs, by an union of hands above the initials of Alexander and Ferdinand. As we were going to this place through the garden, some fireworks were let off, to the great satisfaction of our guests, to whom it was a perfectly novel treat: the illumination likewise excited their surprise, since, at their most brilliant balls, they have not above four or five lights burning. We drank the health of the two monarchs and the patron of our expedition under the roar of artillery. The company, including the governor, staid till sun-rise.

On the 8th, every thing being on-board, we endeavoured to gain the sea with a favourable wind. The commandant of Talcaguano, who had been daily in our company, and became very fond of the Russians, parted from us with tears. When we were under sail, I thought our actual voyage was but beginning, all that had occurred being but the prologue.

The Bay of Concepcion may be recommended to all navigators as an excellent place for refreshment, there being plenty of provisions of every description. Chili is a beautiful country, the abode of almost a continual Spring; during the whole time of our stay we had constant fine weather; but what struck me were the strong lightnings, which I regularly perceived in the evening, after sun-set, in N.E., over the mountains. Chili produces an excellent wine, and it is to be lamented that the Spaniards do not devote themselves more assiduously

to the cultivation of the country; their unreasonable jealousy makes them prohibit all trade, except with their own colonies, which might otherwise be very flourishing.

From the Bay of Conception to Kamtschatka.—The fine weather we had enjoyed in Conception still accompanied us. I endeavoured to steer my course so as to sail over the wind by Juan Fernandez, and then to reach, according to my instructions, the lat. 27° , to seek there *Davis-Land*, where Captain Krusenstern supposed it to be. On the 9th, in lat. $50^{\circ} 22'$, long. $74^{\circ} 4'$, we found the surface of the sea of a bloody colour, produced by a dead whale, upon which a great number of small sea-swallows were feasting. The following evening, at six o'clock, in lat. $34^{\circ} 27' S.$, long. 74° , we felt a strange commotion of the air, and the ship seemed sensibly acted upon; it sounded like the distant roar of thunder, was repeated every three minutes, and each report lasted about half a minute. After the lapse of an hour, we neither heard or perceived any thing more; probably there had been at that moment an earthquake in America, for we were but two degrees from shore, and the noise came from the east.

On the 16th, lat. $29^{\circ} 20' S.$, long. $88^{\circ} 4'$, we were in the neighbourhood of the spot which is supposed to be *Davis-Land*, which made me steer quite to the west. For some days past the wind had settled in S.E., and blew fresh, by which the current took us daily 18 or 20 miles north. On the 20th, when we had already reached $95^{\circ} 35'$, I gave up the search of *Davis-Land*, taking a more southern course, in hope of being more fortunate in finding the *Warchams Rock*, in lat. $26^{\circ} 30' S.$ We could rely on the correctness of our longitude, it having been for some days taken from distances of the sun and moon, which agreed to a few minutes with the longitudes of the chronometers. Here I threw in the sea a well-corked bottle, containing a paper with the latitude and longitude of the ship, the date of the month and year, declaring that the Rurick had looked out here for *Davis-Land* without effect. On the 24th, lat. $26^{\circ} 29' S.$, long. $100^{\circ} 27'$, at five o'clock in the afternoon, we passed over the spot where, according to Arrowsmith's Chart, *Warchams Rock* is situated. We saw great numbers of tropical birds and fish; the horizon was clear, but the man who kept the look-out at the mast-head could see no rock. In the evening we had constant lightning, but fine weather, and sometimes the horizon seemed to be on fire all around us. Under a starry heaven and fresh easterly breeze, we continued our course to the west, in order to find the Isle of Sabs; towards the morning we saw a great quantity of sea-birds, whose numbers kept increasing as we rapidly sailed on. Soon there flew so many

pelicans and frigates about our vessel, that we could no longer doubt our being near some land, and the sailor on the mast-head soon gave us the pleasing intelligence that he saw land. At noon we distinctly saw, from the fore-castle, in S.W. 66 deg., at a distance of 10 miles, a small rocky island; which, although our longitude differed a little from the given one, could only be Sabs Island. The greatest distance from which the island is to be seen is only 15 miles, and then it has the appearance of two groups of rocks lying near each other; but, on coming near, you see the low land which unites them; its length from N.W.W. to S.E.E. is about a mile, its breadth is trifling. We approached the island in the south till within three-quarters of a mile, and now plainly distinguished, with the aid of telescopes, the objects on shore; which, however, were not very inviting, for the grey naked rocks, which lie about in great masses, give the island the appearance of a melancholy ruin, which is only inhabited by sea-birds. On the N.E. and S.W. points are reefs, against which the surges break with fury, and where we sought in vain the wreck of the lost vessel, which had been probably smashed to pieces against the breakers. We found the latitude of this island $26^{\circ} 36' 15''$ S., longitude, by the chronometers regulated on Easter Island, $105^{\circ} 34' 28''$ W. I am almost convinced that Warchams Rock is an erroneous idea, the rock Sabs having hitherto been taken for it.

In order to make sure of there being no other island in this vicinity, I continued my course westward, and only turned it to Easter island, after having sailed a couple of degrees, without discovering any thing. The latter we saw in the morning of the 28th of March. After having doubled the western point, we directed our course, at a small distance from the west coast, towards Cook's Bay, from which we saw smoke arising, probably to announce the arrival of a vessel to the inhabitants of the interior. At noon, being close by Cook's Bay, we saw two boats, each of them manned by two islanders, rowing towards us. I had no doubt that these people, who had given such great confidence to La Perouse, would welcome us with the same kindness; which, to my great surprise, was however not the case. They approached us mistrustfully and timidly until within a musket-shot, from which distance they shewed us some roots, but would not by any means come near the ship. The construction of the boats, of which we saw several, and which can only hold two persons, is from 5 to 6 feet long, and about one foot wide, composed of small boards, and having a balancier on both sides. La Perouse is probably mistaken, when he thinks that, from want of wood, these islanders would soon be without boats altogether; it is true we

have not seen any tree on the whole island, but the canoes are built of wood, which is drifted here in great quantities by the current, from the coast of America. The ground in Cook's Bay being very bad in some places, I sent out Lieut. Schischmareff to look for a convenient anchorage, during which I kept the *Rurick* under sail. The islanders who had hitherto followed the vessel, talking loudly among themselves, and seemingly in a very good humour, fled hastily to the shore, on seeing our boat. However, as the boat approached the land, they swam in great numbers to meet it, loaded with tarrow-root, yams, and bananas, which they greedily exchanged for small bits of old iron; some traded very honestly, some cheated, and one even endeavoured to lay hold of something by force. In order to keep the others from infection, he was fired upon with very small shot, which did not, however, prevent them from robbing us. On the signal of our boat that they had found good anchorage, I approached it, and dropped the anchors upon a ground of fine sand, in a depth of 22 fathoms. The Sandy Bay lay 45 degrees S.E. from us, the two rocks were concealed behind the southern point: our boat now returned without the islanders venturing to follow it. Having an intention to land, I ordered two boats to be manned, and we left the ship in the afternoon, 17 strong. A great many savages had collected on shore; they screamed, danced, made strange gestures, and seemed to await our arrival with impatience; but, having selected the only spot where the surge permitted them to land, to perform their antics, we could not venture to leave the boats before they had made room, to which however we could not induce them. With laughing and joking they obliged us to push from shore, and even followed us in the water, which however we did not think dangerous, they being all unarmed. We had scarcely left the shore, when hundreds came round our boats, to exchange bananas and sugar-cane for pieces of old iron, making, at the same time, a most intolerable noise, all likewise talking with great vivacity, and some seemed to be very witty, frequently causing a general dreadful laugh. The spectators on shore, who began to get tired of this scene, endeavoured to amuse themselves by throwing stones at us, an amusement which I put a stop to by a few musket-shots. By this expedient I also got rid of our company in the water, and gained the landing-place, where I quickly sent some sailors on shore. But, scarcely had the savages perceived this, when they surrounded us again with increased obtrusiveness: they now had painted their faces white, red, and black, which gave them a frightful appearance, dancing with the most ridiculous contortion of body, and making such a dreadful

noise, that we were obliged to bawl into each other's ears to understand each other. I can imagine the impression which this scene made on Lieut. Schischmareff, who saw these people for the first time, and thought he was surrounded by so many monkeys; for the confusion even surpassed my own conception, although I was already acquainted with the inhabitants of the South Sea. In order to disperse them, and to gain some ground, I had knives thrown among them; but when I, nevertheless, felt a stone rebounding from my hat, I ordered the sailors to fire again, after which only I could go on shore myself. Here it was my first occupation to look for the large remarkable statues, which had been seen by Cook and La Perouse, yet I found only a heap of fragments lying near a whole pedestal, all the rest had vanished without leaving a trace behind them. The mistrustful conduct of the islanders now made me think that, some Europeans having quarrelled with them, they had revenged themselves by making this destruction. It also struck me that we had not seen any women, either in the water or on shore, about whose obtrusiveness my predecessors have so often complained, and which confirmed me in my supposition that some Europeans had recently been guilty of cruelty here. After having convinced myself that the good islanders would, under no condition, permit us to enter the island, we endeavoured to withdraw the boats, which besides were very unsafe between the breakers; but even now we were obliged to keep them off by a couple of bullets, and it was not until they heard them whizzing by their ears, that they allowed us to withdraw in peace. We yet gave them some iron, and then hastened back on-board, as, under existing circumstances, a longer stay would have been time lost, and I had not a moment to spare. The people here seem to me to be well made, but of a middling size; most of them are copper-coloured, only a few are rather white: all of them are tattooed, but those who are so all over the body seem to hold some superior rank. The stuff, which on most of the South Sea Islands is made from bark of trees, we also found here; some men wearing short cloaks made from it, and the women, who stood at a distance, were entirely wrapped in them. To judge by the cheerfulness of these people, they seemed to be satisfied with their condition; they had probably no want of provision, since they brought us yams, bananas, sugar-cane, and potatoes, in tolerably large quantities; nor do they neglect the cultivation of the soil, for we saw the hills near the bay covered with fields, which, by their various kinds of green, had a very pleasant effect. The seeds which La Perouse had given them could not have succeeded, since they brought us no fruits of them:

we also looked in vain for the descendants of the sheep and pigs that he had left here; only one fowl was offered to us for a large knife, and taken away again when we would not agree to the bargain, a proof how high they value these birds, and how few of them they must have. Their houses are quite the same as La Perouse has described them; and the long house and stone cottage, mentioned on his map as standing near the shore, are still there. Upon the whole I think that, with the exception of the disappearance of the remarkable statues, no changes have occurred since he was here; and, even of those, we saw a couple when we sailed round the southern point, but they were inconsiderable. Our farewell from Easter Island the inhabitants returned by stones, which they threw after us with a great noise; and I was glad when we had got safe on board again, and were under sail.

An account which I afterwards received of the Sandwich islands, from Alexander Adams, explains the hostile conduct of the islanders against me. This Adams, by birth an Englishman, commanded in 1816 the brig *Kahumanna*, belonging to the king of the Sandwich Islands, and had served in the same brig as mate, under Captain Piccott, before she had been sold to the king, when she bore the name of *Forrester, of London*. In the year 1805, the captain of the schooner *Nancy*, (Adams has not mentioned his name,) of New London, in America, was engaged in the island of Massafuero in taking a kind of seal, called by the Russians *kotick* (sea-cats). The skins of these animals fetch a high price in the China market, which makes the Americans seek for them in all parts of the world. This animal was accidentally discovered on the still uninhabited island of Massafuero, south of Juan Fernandez, (whither they send the criminals from Chili,) and was immediately chased. The island however had no anchorage, the ship was obliged to remain under sail, and the captain not having people enough to use part of them for the chase, he resolved to sail to Easter Island, there to steal men and women, with whom he could form a colony on Massafuero, in order to carry on the chase of the animal regularly. This cruel project he attempted in 1800, landing in Cook's Bay, where he endeavoured to seize a number of inhabitants. The battle is said to have been bloody, the islanders defending themselves with great bravery; however they were obliged to submit to European arms, and 12 men and 10 women fell into his hands alive. These unhappy people were taken on-board, where they were kept for the first three days in irons, till they had entirely lost sight of the land. The first use the men made of their liberty was to jump overboard, and the women, who attempted to follow them, were only re-

tained by force. The captain immediately came-to, hoping they would look for safety on board, when they could swim no longer; but he soon perceived that he was mistaken, for these savages, familiar with the element from their youth, thought it not impossible to reach their native country in spite of the distance of a three days' voyage, and at all events to prefer death to a life of captivity. After having for some time disputed about the direction which they were to take, the company divided, some took the straight way to Easter Island, the others turned towards the north. The captain, extremely angry at this unexpected act of heroism, sent a boat after them, which, after many useless attempts, returned; for they always dived at its approach, and the sea proved their protection. At last the captain left the men to their fate, taking the women to Massafuera, and he is said to have made afterwards several attempts to take people from the Easter Island. Adams, who had these circumstances from him, and on that account probably would not name him, told me that he had been himself, in 1806, near Easter Island, where the natives would not allow him to land; the ship *Abatross*, under Captain Windship, met, as he said, with the same fate in 1809.

I was to have touched at Pitcairn's Island, and from thence to have taken my course to the west, as far as 137 deg.; but our voyage from Cronstadt to Chili having taken too much time, I was now obliged to take a shorter course to Kamtschatka, if I could arrive in Baring Strait in time.

On the 8th of April, lat. 18 deg. 6 min. S., long. 125 deg. 16 min., we saw several kinds of sea-birds, some of which are not usually seen far from the shore; besides, we were in the vicinity where I might expect new discoveries, I therefore had always a man on the mast-head, to whom I promised a reward for every discovery. Soon the call of Land inspired us with the highest expectations, thinking that it must be something new. When, behold, the supposed land rose in the shape of a black cloud, and, moving along the horizon, carried away our fair hopes.

On the 10th, lat. 16 deg. 39 min. S., long. 130 deg. 18 min.—It is remarkable that from Easter Island the wind mostly blows from E. and N.E., and the S.E. trade-wind does not stir; the weather is always light, and often, at sun-set, there is lightning from the north. The nights being very warm, we all sleep upon deck, a circumstance which procured me a strange visit. I awoke by the motion of a very cold animal at my side, which I at first took for a lizard, that might have been taken in with the wood. Upon closer inspection, however, I found a flying-fish in my hands, and I am, probably, the first who has caught one in bed.

On the 13th, lat. 15 deg. 26 min. S., long. 133 deg. 56 min. in the afternoon, at six o'clock, we were on the spot where Arrowsmith places the Island of St. Pablo, without finding the least indication of land; and at eight o'clock in the evening I took my course due west, in order to pursue, according to my instructions, the parallel 15 deg., in which Schouten and Le-maire have several islands, which have afterwards never been seen.

The 15th, lat. 24 deg. 41 min., long. 137 deg. 00 min., we saw, during the whole day, various sea-birds, particularly frigates and pelicans; and at five o'clock in the afternoon we were suddenly assailed by a violent rain, accompanied with squalls from the N.W. Such a strange change of wind in a region where it usually only blows from E. and S.E. I thought could only proceed from the proximity of some land, and I resolved not to sail farther during the night.

The 16th, lat. 14 deg. 51 min., long. 138 deg. 4 min., we continued our course at day-break with a strong wind from E.N.E. At three o'clock in the afternoon, a sailor at the mast-head cried land! and soon I had the inexpressible joy of beholding the fulfilment of my wishes. The land had been discovered in N.N.W. by a W.S.W. course, and we immediately set sail for it. The island seemed to us to be small and very low, for the wood which we clearly distinguished seemed to stand on the immediate surface of the ocean. The greatest distance from which the island may be seen from the mast-head is ten miles. We now sailed round its northern point, within a distance of a mile and a half, and found the island thickly covered with underwood, in the middle of which was a small lake, the shores surrounded by coral reefs, and the surge so strong that it seemed impossible to land. When the sun had set, we drew away from this lovely spot, tacking the whole night with few sails, in order to examine it again the next morning. The wind shifting from N. to N.E., it cannot easily be explained why the monsoon changes here its usual direction, there being no high land near. At sun-set the bird flew toward the island, and returned in the morning. I think I may say, from my own experience, that the navigator may calculate upon the vicinity of an uninhabited island when he sees many sea-birds, especially pelicans, moving about; an observation, however, which is only applicable between the tropics; he will observe that, at sun-set, they will all fly in one direction, (those excepted which keep upon sea the whole night,) and one might, by following the flight of these birds, find their residence. At day-break we approached the island again, sailing within a mile and a half of its north and west

point. We saw no-where a place for landing, except at the N.W. point, where it might have been possible to approach, if the north wind had not made the surge so high. The middle of the island, near the lake, is very low, the external points in N. and S. are higher. We looked in vain for a palm-tree. According to the description, this island resembles *Schouten's* Dog Island, yet it is not certain whether it be the same, our latitudes differing by 22 minutes; a fault which could not take place even at that period: the difference in the longitude I do not consider, it being at that time naturally always erroneous, by some degrees only. There must be more of those islands about here, which we concluded from the multitudes of sea-birds we had seen during the last two days, all which could not possibly belong to the same island. However, I called my island the *Doubtful*. Its latitude, from two mid-day observations, is 14 deg. 50 min. 11 sec. S., longitude, by the chronometers, which tallied very well with some longitudes of moon-distances that had been lately taken, 138 deg. 47 min. 7 sec. The declension of the needle 5 deg. east. *Schouten* had no declension the day before he discovered the Dog Island, and found the lat. 15 deg. 12 min. 3 sec. At eleven o'clock we had finished our survey, and had convinced ourselves that there could be no landing, and that the island was only inhabited by birds: as, according to *Schouten*, the Dog Island must be situated more to the south, I directed my course that way, and, after an hour's useless seeking, I turned again to the west. Since we were on the parallel 15 deg. the wind always blew from E.N.E. and N.E.; at night, however, accompanied by rain and violent squalls from N.W.

On the 19th and 20th we had excellent observations between the sun and moon, which again perfectly verified the correctness of our chronometers. The sailor on the mast-head cried land! It was seen in S.W., and at noon we distinguished an island of three miles in length, which had no lake, but several cocoa-nut trees, just overtopping the others. This I could justly call my own discovery. We were all resolved to resist every danger to effect a landing. We brought the ship under the wind, and Lieutenant Zacharin was dispatched to examine how our resolution was to be executed; for we had already seen that the surge could not be passed with a boat. Zacharin, on his return, confirmed this observation, and two sailors volunteered to swim through the breakers. They happily landed, but could not penetrate far, seeing by several traces that the island was inhabited; as a proof of their having actually landed, they brought with them several cocoa-nut shells and a plaited string tied to a stick. It was now too late to do any thing, but,

during the night, I set my men about making a raft, which was finished by the morning, being large enough to carry one man. At day-break we approached the shore within half a mile; and, with two boats and our new raft, I left the *Rurick* in company with an officer and all the scientific gentlemen. About forty fathoms from shore our boats cast anchor upon a hard coral ground, in a depth of ten fathoms, and my two sailors swam again on shore, taking the end of a rope with them, which, being fastened to the boats, formed a communication with the land. One placed on the raft, drew himself, by means of the rope, towards the surge, until one of the large waves threw him on shore; the raft was then drawn back, and another repeated the experiment, till we had all reached the shore, with the exception of two sailors who were left in the boats, being more or less hurt by the corals over which the waves had thrown us. Our being wet to the skin was of no consequence in a tropical climate. Well armed, we now penetrated into the interior, and every step we advanced convinced us of the island being uninhabited, till we found a well-frequented foot-path. With great precaution we followed it through underwoods, whose aromatic fragrance we found highly refreshing, till we arrived on a plain, shaded by palm-trees, where we met with a small boat, resembling those of the South-Sea, with a balancier on the sides. We were now nearly in the centre of the island, in a delightful landscape, where we laid down, exhausted by the heat, under cocoa-nut trees, and, for the first time on our voyage, refreshed ourselves with the milk of this fruit. After having taken some rest, we proceeded farther, and soon found many uninhabited cabins, with several productions of the savages, which we appropriated to ourselves for European goods. Recent traces of inhabitants we found no-where, and some poles, upon which fishing-nets were suspended, confirmed me in the opinion that the neighbouring islanders only came here occasionally on fishing expeditions. Within four hours we had crossed the island from N. to S., and, on our return, we fell in with several cisterns, dug with great care, which contained some very good water. It is a well-known fact that there are no springs on the coral islands, where the inhabitants are reduced to rain-water, which they collect in cisterns made for that purpose. Having again reached our landing-place, we drank a bottle of wine, under loud cheers, to the health of Count Rumanzoff, after whom I named the island. Flags were hoisted in our boats under the firing of muskets, upon which signal the *Rurick* hoisted the Imperial flag, under a royal salute, and we drank the health of our beloved emperor. With the same difficulty under which we had landed we reached

our boats again, and at two o'clock in the afternoon we were back on-board the *Rurick*, where I distributed the cocoa-nuts, which we had brought from Rumanzoff Island, among the remainder of the crew. The allowance of the men that day was doubled, and the sailor who had discovered the island received a reward of six piastres. We tacked the whole of the following night, from fear of running against some low island, which we had reason to suppose lay in the vicinity, and at day-break we continued our course towards the west. The latitude of the centre of Rumanzoff Island, according to a mid-day observation, taken with three sextants, was 14 deg. 57 min. 20 sec. S., longitude, after the chronometers, agreeing with the observation, 144 deg. 28 min. 30 sec. W. The declension of the needle 5 deg. 36 min. east.

On the 22d of April, at 9 o'clock in the morning, we saw land from the mast-head, in N.N.W., and immediately steered for it. This island, with a lake in the centre, from which several large stones were projecting, is of the same construction as the rest; it runs in length 11 miles from N.N.E. to S.S.W., and is only 3 miles broad. We sailed round the S.W. point, within the distance of half a mile, without seeing either the trace of a human being, nor a single cocoa-tree. At noon we had the southern point of the island in the east; from an excellent observation which we had, we found its central latitude 14 deg. 41 min. S., longitude, by the chronometers, 144 deg. 59 min. 20 sec. W. Not doubting that this island was also a new discovery, I called it after my former chief, the Admiral *Spiridof*. As the island did not seem to be inhabited, and the landing being as difficult as on the former island, I would not lose any time, but steered W.S.W. with the intention of seeing Cook's Palissairs, and comparing my longitudes with his. Immediately after sun-set I came to a spot where the sea was surprisingly smooth and calm, a proof that there must have been many islands near us; but we found the current here so strong, that on the following noon the ship had been driven 28 miles to the N.W. 82 deg.

On the 23d April, at day-break, we again set sail, and, according to my calculation, at 10 o'clock in the morning, we were a little to the north of the meridian of the Palissairs, therefore I ordered our course S.S.W. At half past 10 land was seen both to the right and left; I now steered S. to E. which took us straight into the passage. The land to the right, consisting of a multitude of small coral islands, covered with wood, and connected by coral reefs, I declared to be a new discovery. Their situation was more north than that of the Palissairs, which we distinctly saw on the left, and the meri-

dian of that we had already passed, which ought not to have been by our ship's account. I began to doubt the exactness of my chronometers, when a mid-day observation convinced me that the current had put us out, which had driven us 30 miles W. My calculation of the longitude of the Palissairs agreed with that of Cook by three minutes; in our latitudes we had no difference at all. Convinced that the islands in S.E. were actually the Palissairs, and consequently required no investigation, we turned our attention to those lately discovered, which extended in a chain as far S.W. as the eye could discern; the accompanying chart of them will give a better idea of their situation than any description, which I therefore omit. I am inclined to think them uninhabited, since we neither saw a trace of men nor any cocoa-trees, although we had pursued the whole chain, beginning from the south-west end, and keeping so near the shore that we could even see the motion of the trees by the wind. The length of the largest islands, which were connected by low coral reefs, extending from 100 to 200 fathoms, was about two miles; their breadth half or a quarter of a mile; but all of them, even the smallest, that were not above 100 fathoms long, were covered with very beautiful trees. These islands probably form a circle; for, from the mast-head, we could see the horizon on the other side of the chain, the sea appearing calm, while on this side the surf was high. At noon we passed close by a low reef, which enabled us to take the altitude of the sun on the other side of the land; we then followed the chain, which ran in a serpentine line, till three o'clock in the afternoon, where we saw another long reef forming the southern part, and then abruptly turning to the west. At the same moment land was announced in S.S.E., and I found, by farther investigation of the chain, by continuing my course to N.W., that this long reef joined in that direction with other islands. At six o'clock in the evening we reached the most westerly island of the whole chain; the length of which to this spot, deducting the curves, was 40 miles; here the land abruptly turned to the N.E., and disappeared in the N. As the sun was now setting, we were obliged to postpone our survey till the morning, and therefore tacked during the night with few sails; but, as soon as day-light appeared, we found that the current had taken us away far from the land in the east, to new islands in the west.

On the 24th, the islands discovered yesterday lay to us over the wind, and after much tacking we only gained just enough to see the land in the east from the mast-head. My time being

short, I was obliged to give up the farther survey of these islands, and called them the Rurick Chain. Nor could we investigate the island which we had seen from the south point of the Rurick Chain in S.S.E.; but, as it is discovered, some other navigator, who chooses to try his fortune among these dangerous groups, may complete that which the circumstances did not allow me to examine.

Points in the Rurick Chain which have been astronomically determined:

Latitude of the north point -----	15° 10' S.
Longitude -----	146 34 W.
Latitude of the east point-----	15 21 S.
Longitude -----	146 46 W.
Latitude of the south point, where we terminated our survey -----	15 30 S.
Longitude -----	146 46 W.
Declension of the needle -----	6 16 E.

I now directed my course towards the land in the west, which we had seen at day-break, and we soon saw that it was of the same construction as the Rurick Chain, extending from E. to W. Following the southern part, within the distance of half a mile from shore, I convinced myself that it must be the Dean's Island, in Arrowsmith's chart. The sun had set before we had reached the end of the chain, which still kept its direction to the south. Here too we saw neither traces of men, nor cocoa-trees, yet it is not probable that so great an extent of land should be uninhabited. We tacked during the night, and the following morning continued the survey.

On the 25th, when we had approached the south point of Dean's Island, and already began to see that the chain took its direction to N.E., we discovered land in W.N.W.; Dean's Island being at the same time under the wind, I gave up the farther investigation of this point, turning my course towards the land that we saw in the west, and which I took to be a new discovery. The direction of Dean's Island is incorrectly drawn in Arrowsmith's chart, where it seems to have been overlooked: it is a chain of islands connected by coral reefs. I have frequently had experience in my voyages with other coral islands, to prove that they form circles, which makes me think that it is also the case with this. The direction and extent of Dean's Island, after our survey, which is chiefly founded on astronomical observations, is N.W. 76° and S.E. 76°, filling a space of 72½ miles in this direction.

Latitude of the east point of Dean's Island	15° 16' 30" S.
Longitude -----	147 72 00 W.
Latitude of the south point -----	15 22 30 S.
Longitude -----	147 19 30 W.
Latitude of the west point -----	15 00 00 S.
Longitude -----	148 22 00 W.

We soon reached the land in W., which likewise consisted of small coral islands, connected by reefs, and extending thirteen miles, from N.N.E. to S.S.W.; this was also the largest group that formed the circle, in the middle of which was a large basin, with a woody island in the centre, which particularly distinguishes the cluster. This group, which is undoubtedly a new discovery, is named after the gentlemen with whom I had made the first voyage round the world, *Krusenstern*. At noon we had an excellent observation; the N.W. point of the *Krusenstern* Islands lay to our west, Dean's Island was seen in the east, taking its direction to N.E., where it disappeared on the horizon: taking our course towards the N. we sailed between both, and were very glad to have escaped this labyrinth of islands, in which so many sailors had lost their lives. Had not the weather favoured us so much, we should have been exposed to many dangers, and our astronomical observations would not have deserved the same confidence, had not the sun assisted us at all hours. A storm, or dull weather, is in these seas the inevitable ruin of a ship; and even the possession of an exact chart of these islands would be of no avail, the currents being strong, the land low, and the wind too violent to tack about, if a vessel should have the misfortune to come near a coral reef. The depth of the sea, at a distance of 200 fathoms, could not be ascertained, consequently the lead will not warn against the danger in time, for at 50 fathoms distance from the islands, the depth is 50 fathoms, and immediately after no ground is to be found. Notwithstanding all these dangers, I should have liked to have remained here a few days longer, in order to have finished the survey of some groups, if the necessity of being within a certain space in Baring Strait had not made time too valuable to me; thus, agreeably to instruction, I took my course N.W. towards the region where Baumann's Islands are supposed to be.

Latitude of the centre of <i>Krusenstern</i> Islands--	15° 00' S.
Longitude -----	148 41 W.
Declension of the needle -----	5 37 E.

During the night the wind blew a gale from N.E., accompa-

nied by rain, and we thought ourselves very fortunate in being out of the coral islands; but seeing, notwithstanding this gale, that the sea remained smooth, we had reason to suppose land in N.E., and therefore used very little sail.

On the 28th, lat. $12^{\circ} 2'$, long. $154^{\circ} 38'$, at six o'clock in the evening, we were on the spot where Baumann's Islands are said to be, without perceiving the least sign of land; we steered N.W. to pursue the line where the islands of Roggewein and Penhoven are supposed to be, but also without finding them; which makes me conclude that these islands, the existence of which had already been doubted, are not actually to be found. I then directed my course towards Penrhyn's Islands, which had only been seen by their discoverer at a distance, and have not been examined since. But, as this would make our voyage longer, I was obliged to reduce the allowance of water to one bottle a head per day.

On the 30th, in the afternoon, we saw Penrhyn's Islands, which we found, like all other coral islands, forming a circle, connected by reefs, from the lake in the middle; many rocks were also seen above the water. We were surprised to see these islands covered with thick forests of cocoa-trees, and our astonishment was agreeably increased when we perceived, by the columns of smoke issuing from them, that this small and distant group was inhabited. With our telescopes we could even see the people running about on shore, and the setting sun only induced us to postpone the farther investigation till the next day. We tacked about in fine weather, while innumerable quantities of bonitos surrounded our ship. On the 1st of May we brought the Rurick under the wind; at eight o'clock we were in calm water, within a couple of miles from land, and then distinctly saw a great many people on shore, actively engaged in putting their boats to sea, while some from the other islands were already approaching in theirs. The population, with reference to the size of the land, is disproportionate, so that I cannot conceive how they all find food there. On seeing a number of boats coming towards us, we came to: some of the boats, which carried from 12 to 18 people, had sails; in each of them was an old man, probably the commander of the rowers, for he was sitting gravely, with a wreath of palm-branches round his neck, holding up in his left hand a palm-branch, as a sign of peace. When the boats had approached us, within a distance of 20 fathoms, they stopped and began singing in a very melancholy strain; but, after this ceremony, they fearlessly came nearer, yet without coming on-board. We were, however, cruelly disappointed in our expectation of meeting

with fresh provisions, for they brought nothing but unripe coconuts, which they offered to barter for old nails and pieces of iron; however, to profit something by them, I allowed every one to supply himself with the manufactures of the savages, as far as he liked. The Rurick was soon surrounded by 26 boats, which we kept on one side of us, my crew not being sufficiently strong to protect the ship against the greediness of 300 savages. The trade was carried on in a very lively and clamorous manner; many boats, in their endeavour to be foremost with their goods, upset, but the most violent quarrel always ended with laughing and joking. Those who could not approach the Rurick, on account of the crowd, amused themselves in their boats with singing and dancing; their droll movements, and particularly their skill in making faces, gave us much amusement.

The exchanges were effected by means of a rope, to which they fastened their goods without mistrust, and waited patiently for their payment, which was conveyed to them in the same way. One of the chiefs, who got up so high on the side of the ship that he could reach to look over the castle, was pulled back by the legs by the others, amidst lamentable screams; but, when he had got back again into the boat, they surrounded him, and with a great many gestures he told them of the wonders which he had seen, shewing, at the same time, the presents which we had made him, to reward his courage. By degrees, the boldness of the islanders increased, they stole as much as they could, and, at last, went even so far as to threaten us. Unacquainted with the superiority of European arms, they grew bold by their numbers, which they shewed by their wild cries. At last I was obliged to have a musket fired, which had its effect: in the same instant they all jumped into the sea, in which they disappeared. A death-like silence followed the monstrous noise, and an immense grave seemed to have swallowed them all, till, by degrees, one head after the other appeared above the surface. Fright and terror were depicted in every face; they looked carefully about them to see what mischief the report had done, and, when they found that there was none, they returned into their boats; but they were more orderly. Nothing pleased them better than large nails, for which they sold us some lances of black wood, very neatly made, with some other arms.

These islanders resemble in size and strength the inhabitants of the Marquesas; their faces, too, may be something like them, although those of the Marquesas seemed to me to be handsomer and whiter. Of the women I cannot judge, having seen only two of them, who were old and very ugly. They have the happy cheerful temper of the other South-Sea island-

ers, but they are rather more savage in their conduct. It is remarkable that these islanders are not tattooed, in which they deviate from all the other South-Sea islanders, particularly as they are so near the Friendly Islands, that they either have their origin among them or they have been driven here from the Washington Islands. However, not to be altogether without ornaments, most of them have scratched stripes down their backs, which gives them, with their long matted hair hanging over them, a disgusting appearance. With the exception of a few, who wear a girdle of badly-made stuff, they are all naked. They wear their nails long, and they form probably the principal ornament of the chiefs, for I saw several who had them near three inches long. The Penrhyns do not possess the tree from which, in most of the South-Sea islands, they make their dresses; which is a proof that they have no connexion with the Friendly Islands; yet they understood some words of their language, which we repeated, borrowed from Cook's Voyages. Their boats, which are badly made, resemble those of the Marquesas, having also the balanciers, and carry conveniently twelve men; the sails, made of coarse matting, are only fit to sail with the wind. Whether the islands produce any thing besides cocoa-nuts, I cannot say; of these, however, judging by the number of trees, there must be a great abundance. Through the telescopes, we saw many women walking on shore, who were admiring the ship from a great distance; we did not perceive a house, but we saw a stone wall, which was very well built. Of the fresh provisions which we had taken from Conception, we had now left but a small pig, which we shewed to the savages, who seemed to know it, and wished to get it. We at last counted thirty-six boats, carrying three hundred and sixty men, whose number would have increased if we had stayed here longer, for we saw already several canoes coming towards us. I should have liked to have gone on shore, but could not venture with my few people, the savages being so numerous and bold.

Towards noon, we had a violent thunder-storm, just when I was about quitting the islands. The savages, far from being frightened at the thunder, had fastened their boats to our ship, and endeavoured to draw the nails out of it, making, at the same time, such a noise, that it was impossible to hear the word of command. To get rid of them I hoisted all sails, and the unexpected quick motion of the ship, which upset several of their boats, obliged them to desist; but they followed us for a long time, making signs that they wished our return. The great population of these islands, the bold spirit of the savages, and their several arms, prove that there must be other islands

near them with which they are connected, and, undoubtedly, also carrying on war.

We found the latitude of this group----- $9^{\circ} \ 1' \ 35''$ S.
 The mean between the chronometers and the
 observed longitude ----- $157 \ 34 \ 32$ W.
 Declension of the needle----- $8 \ 28 \ 0$ E.

Leaving these islands, I endeavoured to cross the equator under 180 deg. longitude, where I expected to make new discoveries; but was ultimately obliged to give up this plan, on account of the oppressive heat, and the frequent calms which kept us too long on our voyage.

On the 4th of May, lat. $7^{\circ} \ 31' \ 39''$ S., long. $162^{\circ} \ 7' \ 19''$, it rained so much that we filled twelve casks of water. For some days past we had had blasts of wind from all quarters of the compass; within the last twenty-four hours the current had driven us $32\frac{1}{2}$ miles to the S.W., and it was but now that we fell in with the real N.E. trade-wind.

On the 8th of May, lat. $3^{\circ} \ 14' \ 34''$ S., long. $168^{\circ} \ 25' \ 33''$ W., we saw a great quantity of sea-birds, which, after sun-set, flew to the south. We caught three, two of which we set at liberty, after having fixed a slip of parchment to their necks, with the name of the ship and the date written upon it; the third was consigned to the collection. They were a kind of sea-swallow, about the size of a pigeon, but black, except a white spot on their heads. We could not doubt, from the great number of birds, that we were near many uninhabited islands and rocks, and, if time had permitted, I should have followed the direction of the birds to the S.W.; but, as it was, the current took us every day from between 33 to 45 miles to N.W., in which direction it continued till the 11th, when we cut the equator under long. $175^{\circ} \ 27' \ 55''$.

The declension of the needle was found $8^{\circ} \ 4'$ East. On the 12th of May, in lat. $1^{\circ} \ 17' \ 46''$ N., long. $177^{\circ} \ 5'$, we saw, among many sea-birds, one land-bird, but could see no land, even from the mast-head; which made us conclude that it lay very low. The thermometer stood for some days and nights upon 23° heat. In the night we killed a dolphin of seven feet long, the flesh of which we found excellent, having been so long without fresh meat; its taste was something like that of beef.

On the 19th we were between the parallels of 8 and 9 degrees, in search of the Mulgraves, where Arrowsmith has placed them in his chart. At three o'clock p.m., according to our account, we cut the chain in lat. $8^{\circ} \ 45' \ 52''$ N. without seeing a trace of

land. Our longitude, according to our chronometers, the correctness of which we had proved but the day before, was $187^{\circ} 47' 14''$. I steered fifteen miles west, thinking that the longitude of the islands on the chart might be incorrect; but, not finding them in that direction, I turned the vessel again to the north. The chart seemed to me to be incorrect, as the opening between 8 and 9 degrees must be larger, since it was impossible to cut the chain without finding land; an opinion in which I was confirmed, when, on my return, I spoke to Mr. Arrowsmith in London, who told me that he had drawn the Mulgrave's chain on his chart upon the uncertain accounts of traders, even Captain Gilbert's Chart having given nothing clear about them.

On the 20th we still continued our course to N.N.W. and at noon, found the lat. $9^{\circ} 26' 21''$, long. $180^{\circ} 19' 6''$ W. I entirely gave up the plan of sailing any farther north, steering direct to west, because, judging by the chart, I still thought I might find the chain in this parallel. In this direction I sailed for thirty-five miles, without seeing any thing. Having no further time to lose, we steered with full sails to N.W.N., straight for Kamtschatka; and it was not until the following year, that I saw, what dangers we had escaped in that dark night, having sailed through low groups of islands, within a very short distance of them.

On the 21st we saw land in N.W., consisting of several islands, resembling the Rurick-chain. At two o'clock, being yet one mile and a half from their south-point, we saw some smoke rising from among the cocoa-trees, and, pursuing the N.E. side of the chain to N., perceived a multitude of people on shore, staring at our ship. We had to double a long coral-reef, connected with the islands, running far out into the sea, and scarcely visible above the surface. We were soon in the high sea, in calm water, and sailed towards the small island in S.W., whilst at 200 fathoms from the reef we could not find the bottom with the lead. It began to grow dark when we approached the small island, where we also saw people, and in the same moment another group of islands was seen from the mast-head in the S.; but we were obliged to defer our investigation till the next day. The situation of all these islands will be found in the annexed chart.

On the 22nd of May we steered towards the land, but could not reach the spot where we had been yesterday, till nine o'clock, the current having driven us, during the night, far W. on the island, the north-side of which was covered with a beautiful grove of cocoa trees: we saw several people in a large

boat, which soon came sailing towards us. We immediately came-to, and admired the clever construction of it, and the skill with which it was managed. The boat stopped at a distance of 100 fathoms from us. It carried nine islanders, who showed us fruit, and intimated by signs that, if we came on shore, they would supply us with plenty. We were astonished at the modest behaviour of these people, so different from that of the Penrhyns, and this could hardly be expected in a south-sea-island, which had never been visited before. They were all unarmed, and appeared in the greatest subordination; the chief sat cross-legged on the left side of the boat, upon an elevated seat, placed upon the balancier, and covered with coloured mats, his head being adorned with flowers and shells. They looked at the ship with astonishment and curiosity, pointing at the objects which pleased them most, and talking loudly among themselves. When I found that all our endeavours to draw them on-board were ineffectual, I ordered a boat to be lowered, hoping that so small a craft would appear less frightful to them. Their astonishment was very great, when they saw it descend from the Rurick. I dispatched Lieut. Schischmareff, with some of our scientific gentlemen, to gain the confidence of the savages by presents: the arrival of the boat terrified them much; but, when it came near, they willingly accepted our presents. Lieut. Schischmareff endeavoured to get into their boat, when they quickly threw a pandanus-fruit and a coloured mat into ours, and then rowed off with the greatest speed; we could not come in contact with them again, although they remained near the ship, and frequently beckoned us to go on shore; but this I could not do, on account of the coral-reefs with which the island was surrounded, having no leisure to seek for a landing-place. Their boat sailed against the wind in an admirable manner; it had but one sail of an disproportionate size, made of fine matting, in the form of an acute triangle, the sharp angle of which was turned downwards. The skill and dexterity with which they turned their boat in tacking, deserves the admiration of every sailor.

These islanders were of a black colour, rather tall and thin; their black, straight hair was interspersed with flowers, and their necks and ears were strangely ornamented; their dress consisted of two mats, plaited and dyed with great ingenuity, both of which were tied round the waist, one before and the other behind, hanging down as far as their knees; the rest of the body was naked. Their countenances bore the expression of good nature, and some resemblance to those of the Malays.

After having finished our survey, we steered to the south, to examine also the other group. The savages followed us,

holding up fruit in their hands. I again came-to, hoping that they would now pay us a visit, and was again disappointed. They also stopped their boat, shouted at every motion we made, particularly when a large sail was turned, which they probably took for a work of enchantment, since they could not see the ropes by which the sails were managed. Seeing there was no prospect of a meeting, I continued my course.

We soon had a distinct view of the second group, consisting of a circle of small islands, connected by coral-reefs, seeming to contain a deep sea in the middle. This group is separated from the other by a channel, three miles and a half long, through which I resolved to sail, a steersman with a good telescope having been placed on the mast-head, to warn us in time against any danger; we, however, found the channel free from rocks, and the depth unfathomable. At four o'clock in the afternoon we had reached the N.W. part of the group, which ended with a dangerous reef. It seemed to us to be uninhabited, and, although thickly covered with wood, we could not see a single palm-tree. Upon the former group too, the population could not be considerable, since we saw only two boats, and but few on the neighbouring shore. I named the first group *Kutusoff*, and the second *Suwaroff*.—Both together occupy twenty-five miles and a half from N. to S.; their situation may be seen on the chart. The latitude of the channel we found $11^{\circ} 11' 20''$, N. the longitude, by the chronometers, $190^{\circ} 9' 23''$. The declension of the needle $11^{\circ} 8'$, E. At six o'clock we had again an open sea, and we steered N.N.W. towards Kamtschatka. It would certainly have been more prudent not to have sailed in this entirely unknown sea, but our time was short, and, employing every measure the circumstances could dictate, we rapidly continued our course, under God's protection.

On the 29th of May, lat. $24^{\circ} 28'$, long. $197^{\circ} 39'$. The society of Agriculture in St. Petersburg had given me three small boxes of dried meat (called meat biscuit), and one with dried cabbage; this invention, the utility of which had been proved on land, was now to be tried on sea; and, I was commissioned to open one box of meat at the first crossing of the north-tropic; the second, with the cabbage, at the second crossing of the same, and to bring back the third to St. Petersburg. The boxes were made of thin boards, in a way to allow a free current of air, a process which I did not think calculated for the sea, and which was probably the chief cause of both the meat and cabbage being spoiled. On crossing the tropic for the second time, to-day, I had the cabbage and the second box of meat opened, and, as they appeared mouldy, we made a soup of them, which was served upon the officer's table. We

all found that it might be eatable in case of necessity, but that it was rather disagreeable in taste, and the physician declared it to be unwholesome, on account of the materials being half spoiled, particularly the cabbage, which, containing oil, had become rancid and injurious to health; the meat which tasted like spoiled cod, had also lost all its nutritious qualities. In order to get rid of the disagreeable taste of the soup we had just eaten, I had some boxes of English patent-meat opened, which, being boiled in steam, soldered up in such a manner as to completely exclude the external air, is, after years, not to be distinguished from the fresh.

On the 3d in lat. $31^{\circ} 49'$, long. $200^{\circ} 15'$, we saw a great many sea-birds, particularly tropic-birds, passing by us. The colour of the water had, since noon, become so dirty, that, towards four o'clock P.M., fearing to be upon a shallow, I had the plummet thrown out, without finding the bottom in 100 fathoms. Dr. Eschscholz, who regularly, every noon, examined the temperature of the surface of the sea with the thermometer, found it this moment $2\frac{1}{2}^{\circ}$ colder: a proof that the depth of the sea had considerably increased since that time, and that we probably were near some unknown land, which the thick fog that surrounded us kept concealed. During the night the water had reassumed its usual colour.

On the 13th we had a violent storm from N.W. in lat. 47° , which brought such intense cold, that lumps of ice fell down upon deck from the rigging; this change of temperature we felt the more sensibly, having had for some months past, day and night, 24° of warmth. Since we had left the parallel 33° , we were constantly surrounded by fogs.

On the 18th we saw the coast of Kamtschatka covered with snow and ice.

On the 19th we sailed towards Awatscha Bay. Towards noon, as we were approaching it, we perceived upon the high rocks on the north-side, a telegraph in full work, an unexpected sight in these regions. It announced the arrival of ships to the commandant of Peter-Paul's Port, who by this means gains sufficient time to send out boats, with anchors and ropes, to meet them at the narrow entrance of Awatscha Bay, where they are of great service. We were slowly towed into the harbour, where we cast anchor at twelve o'clock at night. Winter, which, as it was said, had been unusually long this year, yet reigned all around, and we in vain looked for a green spot. The day after our arrival, our chronometers gave the longitude of the harbour $201^{\circ} 15' 30''$, the true longitude being, according to the observation of the astronomer Horn, $201^{\circ} 16' 40''$.

This small difference showed the accuracy of our chronometers, and that all the longitudes in our voyage may be received with implicit confidence.

My first care was to repair the *Rurick*, which had greatly suffered by the storms, particularly the copper, for which Lieut. *Rudokof*, the governor, gave us the copper of the old ship *Diana*, the same in which Golownin had undertaken the voyage to Japan, and which, on account of its shattered state, he had been obliged to leave here, continuing his journey to Russia by land. By the activity of the governor, our ship was in a short time ready to sail. Since I was here with Capt. Krusenstern, the state of Kamtschatka has been greatly improved, which is chiefly to be attributed to the same governor, who has done more to benefit the country than all his predecessors.

On the 15th of July our ship was ready to sail, and we were waiting only for a favourable wind; the crew were in excellent condition, except Lieutenant Zacharin, who had been sickly during the whole voyage; which obliged me to keep the watch in rotation with Lieutenant Schischmareff, a service from which the commander of such an expedition ought to be exempt, having so much other employment. This is, certainly, the first voyage of discovery which has been successfully completed by two officers only. Lieut. Zacharin being obliged to stay here, I had only one officer left to continue my course to Baring Strait; which, however, did not make me waive my resolution, as his zeal, like mine, remained undiminished. I only regretted, that the hope which I at first entertained had been frustrated, there being but little prospect of accomplishing much in Baring Strait, since one of us had always to stay on board. Mr. Wormskloid, too, wished to continue here, in order to examine the lofty hills of Kamtschatka, for which purpose I recommended him to Lieut. Rudokof.

My crew of twenty were rather too few for the enterprise in Baring Strait, I therefore obtained six additional men from the garrison, whom I promised to bring back the next year; besides an *Alioutskan* of the Russo-American Company.

For those of my readers who are fond of scientific objects, I add, in conclusion of my first year's voyage, a table giving the temperature of the sea in various depths. The observations have been made very carefully, with a good Six's thermometer, and I warrant their correctness. The divisions of both the Six's thermometer, and our other, are after Fahrenheit. As such observations, when made in a boat, require it should be a perfect calm, they are rarely undertaken by mariners.



Dates.	Degree of warmth		Numbers of fathoms of depth.	Temperature of the atmosphere.	Place of the ship.		Transparency of the water.
	upon the surface of the sea.	in the depth of the sea.			latitude.	longitude.	
1815.	The Atlantic.				North.	West.	
Oct. 15	68, 5	53 ⁰ , 7	100	71, 1	39 ⁰ , 27	12 ⁰ , 57	10
— 16	69 ⁰ , 1	53 ⁰ , 0	138	72, 5	39 ⁰ , 4	13 ⁰ , 8	10
	—	56 ⁰ , 0	96	—	—	—	—
1816.	Cape Horn.				South	West.	
Jan. 8	54, 9	38, 8	196	57, 6	44 ⁰ , 17	57, 31	8
April 7	South Sea.						
Morning.	78, 5	68, 5	125	79, 2	18, 17	124, 56	13
—	—	57, 5	175	—	—	—	—
Noon.	79, 6	68, 0	125	80, 0	—	—	—
April 13	80, 0	79, 0	10	79, 8	15 ⁰ , 26'	133, 42	13
—	—	79, 0	20	—	—	—	—
—	—	78, 0	50	—	—	—	—
—	80, 0	72, 0	100	79, 8	15, 26	133, 42	13
—	—	56, 0	200	—	—	—	—
May 12	On the Equator.				North.	South.	
—	82, 5	55, 0	300	83, 0	0 —	177, 5	14
	Northern Ocean.						
June 1	74, 0	62, 0	100	75, 0	29, 24	199, 26	10
—	—	52, 5	300	—	—	—	—
June 6	61, 0	59, 5	10	63, 0	37, 3	199, 17	2
—	—	56, 8	25	—	—	—	—
—	—	52, 7	100	—	—	—	—
—	—	43, 0	300	—	—	—	—

After having dispatched the accounts of our first year's voyage to the chancellor, by express, and having waited in vain for the post from St. Petersburg, which usually arrives about this time of the year, we left Awatscha Bay, notwithstanding the contrary wind.

From Kamtschatka to the newly discovered Kotzebue-Sound, behind Baring Strait.—On the 20th of June we saw Baring's Island, whose rocky snow-covered heights bore a cheerless aspect. On the S.W. side of it is a small rocky island, which has not yet been mentioned in any chart. Our observations gave us for the northern point, lat. 50° 22' 17", long. by the chronometer, 194° 4' 7"; for the S.W. point, lat. 55° 17' 18", long. 194° 6' 37". From this island we steered towards the western part of St. Lawrence Island. The 26th lat. 63° 0', long. 171° 43". In our approach to Baring's Land, we lost the fine weather, and we now had a thick fog with a constant drizzling rain.

Having made no observation since we were at Baring's Island, our situation by the chart was uncertain; but, by the

ship's account, we were near St. Lawrence-island, 20 miles off its S.W. point. At three o'clock, the fog having cleared up a little, we discovered in the N.E. 6° , the summit of a hill, which was immediately lost again in the fog; we were obliged to tack for the remainder of the day and during the whole of the night, using the plummet as our guide. The barometer, during this bad weather, was always very high. Notwithstanding all the care we took in excluding the rats, when the *Rurick* was built, we discovered one to-day upon deck. A chase being immediately ordered, we killed that and two others, which had probably got in at Peter-Paul's harbour; there being many of those vermin at that place, but where they had never been seen before the arrival of the *Nodeshola*; so that I had probably ordered the death of the descendants of my former travelling-companions.

On the 27th, the fog still continuing, I resolved to take my course straight for the land, having frequently made the experiment, that, with a high stand of the barometer, the weather is fine on shore, while there is a thick fog a mile off the coast. Ten fathoms' depth soon announced that we were near it; the fog disappeared, and we saw the sun shining upon a noble range of snowy hills. The nearest distance from shore was two miles, the extent of the country in E. and W. being hidden by the fog; but the *Rurick* was safe within a small open bay. On shore we saw people and tents, and I resolved to take the opportunity of getting acquainted with the inhabitants of an island which had never been visited before. We lowered two boats, and we all started well armed. We did not venture to come to anchor in this open bay, and the *Rurick* remained under sail. The wind blowing gently from S.W. obliged the *Rurick* to stand a little farther from land, and we soon lost sight of her in the fog. At a short distance from shore, we fell in with a *baydare*, carrying ten islanders, who fearlessly approached us, shouting and beckoning with the most singular grimaces, and holding up to us black foxes' skins. We perceived, that they had arms concealed in their *baydare*, and were, therefore, on our guard. After some salutations, which consisted in their stroking themselves, with both hands, several times, from the face to the stomach, their first word was *tobacco!* We gave them some leaves, which they immediately put in their mouths; afterwards I saw them smoking it from small stone pipes, about the size of a thimble: they returned my presents by presenting me with several articles of their manufacture. After this short intercourse I continued my course to the shore, which seemed to frighten them very much, for they ran about uneasily; and many, probably women, fled to the hills. Some

of them met us rather courageously, others strove in vain to conceal their fear under the mask of hospitality; at all our motions they laughed immoderately, but, as soon as they suspected the least hostility, their countenances were visibly changed, and some prepared for flight, others for resistance; but, when they perceived their mistake, they were as friendly as before; their quick transition from mirth to gravity had a ludicrous effect on their faces, which were profusely smeared with whale-oil. We landed, in company with the islanders, opposite their tents, while they assisted us in dragging our boats on shore. This place seems only to be visited in summer, when the islanders are employed in catching whales, morses, and seals; for we saw no fixed habitation, but only a few tents, made of whalebone and covered with morse's skins. A deep cellar dug in the ground, and filled with boiled whale-oil, blubber, dried seal-flesh, and morse's teeth, also proved that they came here only to collect their winter-stock. They also gave us to understand, by various signs, that their proper settlements were behind the cape in the west, whither they invited us; and a second boat arriving from that side, in which there were two women, dressed like men, and with hideous tattooed faces, confirmed our supposition. I regretted I could not understand the language of these people, as I might otherwise have derived much interesting information from them. In many respects these islanders resembled the inhabitants of Norton Sound, described by Cook; they are of a middling size, of a robust healthy appearance; their dresses, made of skin, were exceedingly filthy. My Aleut, who had been for some time on the peninsula of Aliaksa, said that these two nations strongly resembled each other in language and other respects. We saw here several European iron and copper utensils; each islander was armed with a knife an ell long, (probably two feet, *Transl.*) and his person adorned with large blue and white beads.

While the naturalists were traversing the hills, I conversed with the natives, who, on understanding I was the commander, invited me to their tents. Here they spread a dirty skin on the ground, upon which they seated me, after that they severally came up to embrace me, at the same time rubbing their noses forcibly against mine, and finishing their caresses by spitting in their hands, which they passed several times over my face. I bore these ceremonies, however disgusting, with the greatest calmness; however, to prevent a repetition of them, I distributed tobacco leaves among them, which they gratefully accepted. They were about to salute me again; and by no other means could I escape the attack than by distributing

beads, knives, and scissars. But, after this, I was doomed to a still greater trial if possible; they produced a wooden trough, filled with whale blubber, the great delicacy of all northern nations inhabiting the sea-shores, but of which I ate heartily, notwithstanding the disgust and nausea it creates to an European stomach. This condescension, together with the presents I made them, put the seal on our friendship. My host, who was probably the chief, now ordered a dance: one of them advanced, and made, without moving from the spot, the most ludicrous contortions of the body and the most horrible grimaces, which the others accompanied by singing a song, consisting only of two notes, sometimes high, at another time low, while they beat time upon a small tambourine. This performance being over, I took a short walk into the interior, but the fog soon obliged me to return; and, for fear it would increase, we hastened to the vessel; where the savages, who seemed to regret our departure, promised to visit us. The natives call this island *Tschibocki*, and the land in the east (America) *Kililack*. The part which we saw has a very melancholy appearance; it consists of a range of rather high hills, covered with snow; not even a tree or shrub is perceptible upon the grey rocks, except here and there short grass springing from between the moss; a few plants scantily appear above the ground, yet even here there were some flowers blooming. The arms of the natives, which are probably used more in the chase than in war, consist of bows, arrows, and lances; two of the latter we found lined with broad well-wrought steel, which they obtain, as we afterwards learnt, with their other European utensils, from the *Tschutschi*. They appeared never to have seen Europeans; this was evident from the surprise with which they beheld us. Nothing, however, surprised them so much as my telescope, which brought the most distant objects close before them. At twelve o'clock p.m. we all arrived on-board, well pleased with our respective discoveries. The next day we tacked about in a thick fog, without seeing the land, although we were close by it; but, as the coast here is a regular slope, we could approach it, without any apprehension of danger, by means of the plummet, till within ten or twelve fathoms. The sounding is of fine sand and small stones. It was my intention to keep here till the fog had cleared off, and thus it would have given me an opportunity of recognising the situation of our ship, and then to have taken my course between St. Lawrence Island and the coast of Asia.

On the 28th the horizon was clear, but we had no sun. The west coast of St. Lawrence, stretching from S. by E. to N. by W., was only three miles distant, and we distinguished the

bay where we had landed the day before, by the small rocky island on its western part. It is placed in the S.W. part of St. Lawrence. I took my course to the north, along the shore; but, on account of the wind, advanced slowly. At ten o'clock in the evening, it being already tolerably dark, we saw three baydares, with eight or ten men in each, making towards us, which induced me to come-to, when they immediately got on-board. Their behaviour evidently shewed that they had never seen an European vessel before. The first that came upon deck I recognized to be my kind host, who immediately clasped me in his arms, and violently rubbed his nose against mine, at the same time frequently passing his oily hand over my face. A rapid trade now began: within half an hour my sailors had exchanged buttons and similar articles for two hundred kamlaikas (a name given in Kamtschatka to a species of dress made like a shirt, and sewn together with the intestines of seals, sea-lions, and morses). This dress, which is worn over the other clothes, protects them against the wet and damp, and is therefore very useful in this climate. I have observed that in a damp air in all these regions the natives are in the habit of putting it on over their other warm clothes, and I myself have often experienced its beneficial effects in this high northern climate.

On the 29th, a fresh breeze from the S.W. had separated us last night from the islanders. At day-break we saw the north point of St. Lawrence Island. The promontory is discernible by a rock, rising perpendicularly from the sea; a little to the south a small neck of land stretches to the west, which had a singular appearance from the *jurtes* (subterraneous dwellings) and rows of whalebones, which the natives had fixed perpendicularly in the ground round their habitations. Three baydares, with ten men in each, approached us within ten paces, where they stopped, chaunting in a pitiful voice; one of them, rising, spoke some words in an energetic manner, and while holding up a small black dog in his hand, drew forth a knife, with which he stabbed the animal, and then threw it into the sea. This ceremony being terminated, during which the others kept a profound silence, they came close to the ship, yet few only ventured upon deck. I found no difference between them and our friends of yesterday; like them, they call themselves *Tschibocko*, and the opposite coast of Asia, *Wemen*. After an hour we left St. Lawrence Island, taking our course towards Baring Strait, with the intention of visiting Norten Sound the next year.

On the 30th of July, as soon as we had left St. Lawrence Island, we were again enveloped in fog. The west coast of the island we had surveyed trigonometrically; but no point is determined astronomically, the sun not allowing us an observa-

tion. Notwithstanding all the precautions which I had taken, our men were severely troubled with coughs and colds. Twice a day they drank tea, in their hold a fire was constantly burning to keep it dry and warm, and they were never allowed to remain in their damp clothes after they were relieved from the watch. No Russian sailor would voluntarily take this precaution; he would suffer his clothes to dry upon him, without fearing any ill effects which might arise from it; and I found great difficulty in obliging them to adopt that measure.

At four o'clock in the morning the fog disappeared; the Isle of King lay before us, at a distance of eight miles; and at eight o'clock we distinctly saw the Cape Prince of Wales and the islands of Gwozdeff, and even the coast of Asia. For the first time during our stay at Baring's Island the sun shone forth, and allowed us some observations, which still confirmed the accuracy of the chronometers. They gave the longitude of King Island only by a few minutes' difference to that of Cook; we found it 586 feet high.

At two o'clock p.m. we were between the Cape Prince of Wales and Gwozdeff's Islands, of which Cook's as well as all other charts give only three. The clear weather, however, enabled me to discover a fourth, surpassing all the others in extent, and which I named Ratmanoff, after the lieutenant (now captain) of that name, under whose command I was during the voyage of Krusenstern. It is singular that this island was neither seen by Cook nor by Clark, both having sailed close by it; and I am of opinion that it has probably since risen from the ocean. On a level, which stretches from Cape Prince of Wales west, we saw a number of *jurtas* together, with scaffoldings, made of whalebone, for drying fish. Our distance from shore being only three miles, we saw crowds of people staring at our large ship, but without making any attempt to come on-board. Availing ourselves of the wind and the clear weather, I continued my course along the level land extending to E.N.E. from Cape Prince of Wales, and which was entirely covered with rich verdure; there were no trees, but a few shrubs, and some snow on the tops of the island hills. The numerous habitations that so thickly cover this coast, indicate an abundant population; a baydare, which we saw under sail, took its course to the north, without making any attempt to come near our vessel. I kept as close in shore as the depth of the water, which was scarcely five fathoms, would allow; and which made it impossible to overlook any deep bay or inlet. The depth gradually and regularly increases, so that at nine fathoms the land is scarcely visible; therefore it is not surprising that Cook, who kept in seventeen fathoms, never noticed this level.

On the 31st of July, after having continued the survey of the coast during the whole night, in clear weather, I cast anchor within two miles of shore, in a depth of five fathoms, perceiving an inlet which I wished to examine more minutely. At four o'clock, accompanied by the naturalists, I left the *Rurick* in two well-armed boats, landing opposite our anchorage, near some habitations. We went towards the *jurt*es, which are built in a line along the coast, but were only welcomed by dogs, which joined us without any fear; they appeared of the same breed as those used in *Kamtschatka* for drawing sledges. We got upon the roofs of the *jurt*es without seeing any of the inhabitants, who, more frightened than their dogs, seemed to have fled at our approach. The interior of their dwellings we found clean and comfortable. The approach on the S.E. side consisted of an opening three feet high, supported by wood, enclosed by an earthen wall on each side. On entering, we found ourselves in a chamber seven feet high, as many in breadth, and ten feet long, the roof and sides of which were lined with wood. On the left was a drench the whole length of the chamber, filled with pieces of black blubber a foot square, and near it lay sieves with long handles, something like our fish-spoons. On the right side was a narrow channel of two feet and a half deep and seven feet long, through which we were obliged to creep to get into a passage of six feet high, but not broader than the channel. At the end of the passage was a deal partition, with a round opening of one foot and a half in diameter in the centre, through which we entered into a capacious antichamber, ten feet square and six feet high; the latter increased towards the middle of the ceiling, which had an aperture in the centre covered with a fish-bladder, so as to admit the light. On the wall opposite the entrance were fixed, a foot and a half above the ground, broad deals, for bedsteads, which occupied about a third part of the space; and against the other walls small ladders were placed horizontally, being used as shelves for their utensils. The walls and ceilings were made of small rafts, the visible sides of which were planed. All the other houses were built after the plan of the one here described, which must have belonged to a numerous family, having, besides those above-mentioned, two small side rooms. The floors were raised three feet above the ground, between which were cellars for provisions, or probably used as dog-kennels; the walls and floors were likewise made of wood, and they had windows, but no bedsteads. Several utensils and other neatly-made articles, belonging to the inhabitants, lay scattered about their dwellings, among which I particularly admired two small sledges, very prettily made of whale and morses' bones, affording a proof that

the dogs were here used for drawing. After some investigation, we found that we were on an island about eight miles long, and on the widest part one mile broad. Having crossed it, we distinctly saw that the opposite continent formed a wide bay, where, on three points, the junction of the land could not be seen. Although we could not expect to find a passage through this inlet, into the icy sea, we wished to penetrate farther into the country, with the view of gaining some very interesting information. The island, which lay immediately before the bay, formed, with the continent in N.E. and S.W., a small passage. We saw at this moment a large boat, probably made of skin, with black sails, entering into the bay through the S.W. passage, and disappearing in the east, under the horizon. This circumstance immediately determined me to penetrate into the bay through the N.E. passage, which appeared wider than that in S.W.; therefore, getting into our boats, we sailed along the island towards N.E. I shall not enter upon any description of the coasts which we here discovered, referring the reader to the accompanying chart. We found the N.E. passage to be one mile and a half wide; the depth of the middle of the navigable water eight fathoms; the water, just rising in the current, ran into the bay with the velocity of three miles an hour. We landed at the N.E. point, where we made a fire, and within half an hour we had an excellent soup, made of the English patent-meat. I found the utility of this method particularly instanced in our frequent excursions in boats, on account of its portability.

We had just finished our dinner, when we saw two boats, built like those of the Alioutskans, each carrying only one man, coming towards us, with the greatest velocity, from the opposite shore. They approached our encampment within fifty paces, when they observed us attentively, communicating their observations to each other, and at last began counting us. All our endeavours to entice them to come on shore were useless; they struck their hands against their heads, and then fell down on the ground, probably with a view of intimating to us that we should kill them if they came nearer. They could, however, have no idea of fire-arms, as they were within musket-shot, and a number of muskets were standing around us. The dress of these Americans consisted of whale-guts, looking very filthy, and having in their countenances a strong expression of cruelty and wildness. After mistrustfully observing us for some time, they threw a couple of arrows towards their dwellings, probably as a signal; but we entered upon our course into the bay towards the east. On account of the many sand-banks formed by the current, and also the current itself, we advanced

only a mile in three hours ; I therefore gave up the investigation for this year, with an intention of making it the next year with small baydares, which I intended to bring from the Alioutskan Islands. For the present my time was too precious, on account of the short period the navigation lasts in Baring Strait. The bay I named Schischmareff, after my lieutenant: I will not, however, maintain that this inlet actually forms a bay, but it probably divides the coast-land into several islands. The small island I named after our meritorious admiral, Saritscheff. On our return, having doubled the northern point of this island, we saw two boats, with ten men in each, rowing with every exertion to overtake us, and who were evidently coming from the part whence the two baydares had been just sent to reconnoitre our strength. One of our boats had taken the start ; I was in the last with Lieut. Schischmareff and four sailors, and soon the Americans might have overtaken us. Their wild cries and the number of their arms gave a suspicious appearance to their celerity, and indeed we barely had time to sieze our muskets, when one of their boats came beside ours, and two Americans began to attack it furiously : screaming loudly and making the most frightful grimaces, they threatened us with their arrows, while the second made every effort to come to the assistance of their comrades. My sailors, having their guns loaded, only waited for the command to fire ; I, in the mean time, threatened with my gun, by aiming at the savages ; but this only made them laugh, and they merely waited for their companions, to begin their attack vigorously. Secured by superiority in our fire-arms, to which they were complete strangers, we quietly bore their insults, by only drawing our swords ; these bright arms, known to them through the Tschuktschi, had the desired effect ; they desisted, satisfied with following us to our ship. At our invitation, they came tolerably near, conducting themselves peaceably and with humility ; but, notwithstanding all the presents we offered them, not one would come upon deck. Their dress consists of short shirts, made of dog and rein-deer skins, some of them even going half-naked, finding a summer's heat of $22\frac{1}{2}^{\circ}$ almost too much ; their hair is cut short, but their heads are always covered, a custom invariably observed on this coast ; under the lip they wear morse-bones, which give a disgusting appearance to their faces, naturally hideous ; upon the whole, they look much more ferocious than the inhabitants of St. Lawrence Island. We saw a great quantity of drifted wood on Saritscheff Island, and, among these, trees of considerable size. Upon our anchorage, which is astronomically determined, we observed that the current constantly ran to N.E. along the coast ; thus, it is probable that the wood is

drifted into Baring Strait from the south. With a favourable wind and clear weather we sailed, during the night, at so little a distance from the coast, that the objects upon it could be clearly distinguished; the chart which we made here, may, therefore, be fully relied on. At a distance of one mile from shore, over a sandy ground, the depth was regularly from seven to eight fathoms. The land itself was every where the same; low, covered with grass, here and there were hillocks, and, at a distance of fifteen miles, a high ridge of hills, free from snow. From the number of subterraneous habitations we saw, the coast seemed much inhabited. Longitude of our anchorage, by the chronometers, $166^{\circ} 24'$, observed lat. $66^{\circ} 14'$.

On the 1st of August, we observed that the coast took a direction to the east, the land continuing to be low. At eleven o'clock we were at the entrance of a large inlet; we lost the coast we had hitherto pursued; and whilst in E. and N. we saw a lofty ridge of hills. Here the wind suddenly declined, and we were obliged to come to anchor upon a clayey ground, in a depth of seven fathoms; the nearest land from us lay in S.E., at a distance of four miles, the current running strongly towards the entrance.

I cannot describe my feelings, when I thought that I might be opposite the long-sought-for N.E. passage, and that fate had destined me to be its discoverer. In order to get some idea of the direction of the land, I went on shore with two boats. The depth was gradually decreasing, and half a mile from shore we found only five fathoms of water. We landed without difficulty at the foot of a hill, which I immediately ascended; from this I could see no land in any part of the strait: the high hills in the N. were either islands or a distinct coast; for that both coasts could not be connected appeared evident, from this being very low, and the other very high land. From my hill I had a distant view of the land, which continued in a large plain, occasionally interrupted by morasses, small lakes, and a river, which, meandering in various directions, had its rise near us. As far as the eye could reach, every thing was green, here and there were flowers, and snow could only be seen at a great distance, on the top of the hills; yet by digging six inches into the ground, all under this green sward was yet icy and frozen. It was my intention to have examined the coast in the boats, which, however, was prevented by several baydares coming along the shore, from the E., towards us. Five of them, with eight or ten men in each, all armed with lances and bows, landed near us. At the head of each boat they had a black fox-skin, on a long pole, with which they beckoned us, with loud cries. My men were ordered to keep themselves

ready for defence, while I, with our scientific gentlemen, went to meet the Americans, who, at our approach, sat down upon the ground, like the Turks, in a large circle, by which it was intended to show us their peaceable intentions; two of the leaders had seated themselves aloof from the rest. Being well-armed, we entered into the circle, and observed they had left the greater part of their arms in their boats, but had long knives concealed within their sleeves: in their countenances were depicted mistrust, curiosity, and astonishment; they were very loquacious, but we did not understand one word of their conversation. I gave them some tobacco, doubling the portion to the chiefs, a present which they seemed to value very highly; those who had been among the first to receive some, were crafty enough to change their places, in the hope of getting it twice; they both smoked and chewed the tobacco. It was truly strange to see this savage tribe sitting in a circle, smoking from white stone pipes, with wooden tubes. It is remarkable too, that the use of this herb has been extended even to these distant regions; but it is from the Tschuktschi, in Asia, that the Americans receive it, together with European goods. The two chiefs I presented with knives and scissars; the latter they appeared not to have seen before, and they seemed highly delighted when they found that they could cut their hair with them; they were handed round for their inspection, each making trial of them upon his own hair. It was probably the first time they had seen Europeans. They are above the middle size, of strong, vigorous, and healthy appearance; their motions are lively, and they seem much inclined to be jocose; their faces, which have rather a wanton than vacant expression, are ugly and squalid, distinguished by very small eyes and high cheek-bones; and on both sides of the mouth they have holes, in which they wear morse-bones, ornamented with blue beads, which give them a terrific appearance. Their hair hangs down long, except upon the skull, where it is cut short; both head and ears are also ornamented with beads. Their clothes are made of skins, of the form which in Kamtschatka is called *Parka*, with this difference, that in the latter place it reaches down to the feet, whilst here it scarcely reaches down to the knee; besides which, they wear long trowsers, and short half-boots of seal-skin.

Although the thermometer at noon pointed only to 50° of heat, these Indians had now their summer, and mostly went bare-footed and half-naked. They were collecting in crowds; and, as I saw many baydares coming from the west, I thought it most prudent, in order that I might not have to fight, with fifteen men against several hundred Americans, to return to the vessel,

thither our new acquaintances accompanied us with loud cheers, according to the celerity of their baydares. On the shore we perceived a round tower, built of stone, from 24 to 30 feet high, and six feet in diameter, and I much regretted that I could not examine it. The Indians did not venture on-board, but kept close to the ship, selling us several trifles of their manufacture, for knives, looking-glasses, tobacco, &c.; black fox-skins they would not sell for any thing but long knives. They understand dealing perfectly well, are much inclined to bargain, consult among each other, and are amazingly pleased when they think they have cheated any one; but the keenest of all were some old women they had with them. During these transactions there was as much joking and laughing as there could have been, if we had been among merry south-sea-islanders, instead of serious north-landers. Their arms consist of lances, bows, arrows, and a knife, in a sheath, two yards long; this military collection, which they have always about them, shows that they are in constant warfare with some other nations. Their lances, made of very good iron, are like those which are sold by the Russians to the Tschuktschi; their glass beads too are of the same kind as are worn in Asia; which show that they must be in trade with the latter.

At seven o'clock I took my course with a gentle S. breeze towards the inlet. The Americans followed us in their baydares, showing us their skins, and pointing out by signs, that we should find a great many of them in the direction we were sailing; at the same time one of them frequently repeated the words—*Iannia-æ*, (pronounced like *eu* in French.—*Transl.*) while he was repeatedly pointing first to the ship and then to the inlet. The latitude of our anchorage, by the ship-account, was $60^{\circ} 42' 30''$, longitude, by the chronometers, $164^{\circ} 12' 30''$. While we were at anchor, the current constantly ran to N.E. one mile and a quarter in an hour. At sunset, the Americans left us, and we sailed during the night in an eastern direction, the increasing depth adding fresh vigour to our hopes.

On the 2d of August, at day-break, the man whom I sent to the mast-head still saw an open sea to the east. In the N. we saw high land, taking its direction to the E. being a continuation of that which we had seen the day before from our anchorage.

Discovering in the S. a low land, taking its direction to the E. we could not doubt but that we were in a broad channel, and our joy was increased by still seeing an open sea in the east. The wind turning round to S.E. we were obliged to tack. The weather was fine, the latitude at noon was $60^{\circ} 35' 18''$, the longitude $162^{\circ} 19'$. At five o'clock P.M. we saw land from

various points, and our hope as yet only rested upon an open space, between high hills.

On the 3d, during the night, we reached this spot, but were obliged, on account of the dull weather, to anchor over a clayey ground, in a depth of eight fathoms. When the weather cleared up at noon, we found ourselves before an inlet, five miles broad, the shores of which consisted of a high rocky land, the passage remaining open as far as the eye could reach. At the same time the tide regularly changed, and the current run out with a greater rapidity than it entered. We heaved anchor, and sailed towards the inlet; but, having passed the strait, dropped again over a clayey ground, in seven fathoms of water. The land which, on sailing in, lay on our right hand, was an island of seven miles in circumference. In the N. the sea was still open, but I somewhat despaired, when the sounding boat that I had sent out could no-where find above five or six fathoms of depth. I resolved to let my people rest to-day, in order to prosecute the examination with renewed alacrity on the following day; and in the mean time we made an excursion to the island, which I called after our naturalist, *Chamisso*. I took part of my instruments with me. Respecting the declension of the needle, we obtained but imperfect results: on a low neck of land in the eastern part of the island, we found it to be 1° E., the respective observations taken from the point of the island to the ship, and from thence to the island, gave the declension 26° W.; the declension on-board by repeated observations gave 31° $9'$ E.; as this agrees with that made outside the bay, it may be considered as being the most correct. The island of *Chamisso* undoubtedly contains much iron, and this is the cause of our false results. From the top of the island, which is rather high, we had an extensive prospect; the land in the S. seemed to meet every where; in the N. we saw nothing but the open sea; in the E. the island of *Chamisso* is separated from the main land by a channel, five miles broad in the narrowest part. The surrounding land was lofty and rocky, we saw no snow; but the hills were covered with moss, and near the banks there was rich grass. The isle of *Chamisso*, where we were now drinking our tea, was of the same description. The weather was very fine, the thermometer standing upon 59° Fahren. (which it never reached outside the sound.) On the neck of land where we had been sitting, we found several subterranean cellars, lined with leaves, and filled with seal's-flesh; this induced us to think that the Americans had made this one of their stations in their hunting expeditions, and which they had marked by a small pyramid, clumsily built with stones. The island which has but one landing-place, rises

almost perpendicularly from the water; the rocks about it and the islands on the western side are inhabited by numberless swarms of sea-parrots, and the quantity of egg-shells we saw during our rambles seem to indicate that foxes destroy their nests. Hares and partridges were plentiful, and cranes were seen resting upon the island on their passage. In spots, sheltered from the north-winds, willows grow to a height of three feet, the only trees we saw in Baring Strait. On our returning to the vessel, we saw several seals, lying upon large stones on the west side of the island.

On the 4th, at six o'clock, A.M., I left the ship in a boat, accompanied by the lieutenant and our scientific gentlemen, provided with arms and provisions for some days; before starting we took several altitudes, and found the longitude of our anchorage $161^{\circ} 42' 20''$; the latitude, after several observations, $66^{\circ} 13' 25''$. The weather was fine, and, with a gentle S.W. breeze, we doubled the cape before us, and then, coasting along, directed our course to the north. Fifty fathoms from the coast we found the depth from two and a half to three fathoms, over a very good ground. Ships may ride here as safely as in any harbour, to make repairs, especially as the depth in some places will permit them to lay close to the shore. At noon we had advanced fourteen miles, when we landed, and took the altitude. The land was high and rocky, and from the summit of a hill, which we ascended, we discovered we were upon a small rock of ground, and that the land in the north seemed to join that in the east,—a very disagreeable surprise to us; yet, the total junction not being visible, we still entertained some hope, and took our course easterly towards the opposite coast: in the middle of the navigable track we had from five to six fathoms' depth, which, however, so decreased on approaching the shore, that, for fear of running a-ground, I turned to north, straight towards the land, which we had seen at noon from the top of the hill; and, when we had approached within a hundred fathoms, we again had only one fathom of water left. It being late, and my people fatigued, I ordered the *barcasse* (boat) to anchor here, and with the baydare* we went on shore; but, as this also could not entirely approach, we were obliged to wade through the water for a distance of twenty fathoms. Chamisso Island lay eighteen miles south of us; every where, except in the east, there yet seemed some

* A large open boat, quite flat, made of sea-lions' skins. On shore the Kamtschatdales, and all the N.W. American nations, use it as a tent, which I have frequently imitated on my excursions with advantage. I had this baydare made in Kamtschatka, for the purpose of using it in Baring Strait.

place open; we saw the land, and I was obliged to yield my hope of finding the desired passage. I now thought, by not finding the water salt in the bay, that at least I should meet with some large river, upon which we might penetrate deep into the land. Here the land rises abruptly from shore to a height of 120 feet, and then runs, as far as the eye can reach, in a moss-covered plain; except upon the declivity of the shore, where there was some grass growing. In the night we had a storm and a heavy fall of rain, from which, however, we were protected by the baydare.

On the 5th, the weather being unfavourable, I delayed the expedition to the east for a more auspicious day, and returned to the vessel.

On the 6th, I examined the passage east of Chamisso Island, without finding above five fathoms of water in the middle of the navigable track.

On the 7th, we set out again for the examination of the eastern part of the bay, and at noon we had penetrated far enough to see that the land met every where; within a mile from the end, the depth had already decreased to five feet, and we gave up even the hope of finding a river. Happily we met with a landing-place, upon a neck of ground formed by the current, and, it being deep enough to approach with the barcassee, I resolved upon staying there that night. Near this spot were two small cabins, supported by four columns, a few feet high, covered by a morse's skin. These seemed merely intended as a depository for hunting implements and utensils, and we found some exquisitely finished arms in them. I took some arrows, leaving for them several knives, and a hatchet, with the name *Rurick* and the date cut on the handle. Probably this place is only visited in the hunting-season; and the proprietor perhaps keeps rein-deer, there being many horns of this useful animal scattered upon the shore. The land rises gradually from the shore to a considerable height, and is covered below with rich grass, and on the top with moss.

On the 8th, we experienced a stormy night; and, the next day proving equally unpropitious, we were going to return on-board, but scarcely had we proceeded half way before we were overtaken by a violent gale, which compelled us to return to our landing-place, where we lighted a fire with the drifted wood, which we found here in large quantities, that we might dry our clothes. It seemed as if fate had destined us this storm, in order that we might make a very remarkable discovery. During our stay we had been wandering about for some time, without suspecting that we were walking upon ice. Dr. Eschsholz, on a more extensive tour, now found, on a spot where a part of

the bank had fallen down, that the interior of the hill consisted of pure ice. On this information, we all provided ourselves with tools for digging, and soon came to a spot, where the bank rises almost perpendicularly to a height of a hundred feet, and, still ascending, runs farther back. Here we saw the purest masses of ice, a hundred feet high, lying under a cover of moss and grass, and which could only owe their origin to a dreadful revolution. The broken part, which is now exposed to the effects of the sun and atmosphere, is dissolving, and a great stream of water flows from it into the sea. An incontestible proof that the ice which we saw was of a primitive construction, may be inferred from the many bones and teeth of the mammoth, that have been discovered by the thawing of these masses, by which I also found a very fine tooth. We were, likewise, at some loss to account for a strong smell in this neighbourhood, resembling that of burnt horn. The stratum of these hills, on which, to a certain height, the richest grass is only half a foot thick, consists of a mixture of clay, sand, and mould; from beneath this layer the ice gradually thaws away, while the former continues to nourish vegetation below, and thus, after a series of years, the hill will have vanished, and a green valley will flourish where it now stands. We found the latitude of the neck of land $66^{\circ} 15' 36''$ N.; here too we obtained an inaccurate result for the declension of the needle, viz. 13° W.

On the 9th, we returned to the vessel, where we learnt that, during our absence, two baydares had approached her, but had immediately been driven away by a musket-shot, according to the order which I had left, that, on account of the few men on-board, no Americans should be allowed to come too near. The bay I called, after our physician, Eschscholz. It seemed uninhabited, and as if only visited at certain seasons of the year, for the purpose of hunting. I have no doubt of there being a river among the lofty hills, which however I could not examine on account of the shallow. In the back part of Eschscholz bay, a range of very high hills is visible. The ebb lasts here only seven, and the flow five hours; the water at full moon rises to six feet, has its highest stand at six o'clock P.M.; and the current runs during the ebb one mile and three quarters, and during the flow one mile and a quarter, in the hour,—a difference probably caused by the thawing of the ice; the stream runs quicker out than in, sometimes as much as two knots. During the strong gale from S.E., on the 8th of August, the barometer stood upon 30.00 inches.

On the 10th, at four P.M., we left the bay, with a fresh breeze from S.S.E., directing our course to the land in the

south, and came to anchor when it grew dark. The land in the south lay at a distance of seven miles from us; the depth was seven fathoms, over a clayey ground. Chamisso Island lay at N.E. $41^{\circ} 18\frac{1}{2}$ miles, and a high hill, the top of which was similar to a cap, lay, from us, 82° N.E.

We were visited by a baydare with eight people, one of whom we recognized as having seen before; but these Americans treated us with great disrespect, offering to sell us only small pieces of rat and dog skins; when they found that we laughed at these articles, they also began laughing, talked for some time among themselves, and at last advised us to put their morsels of skin in our noses and ears. They did not venture on-board, but were always on the alert to fly, and left us very well pleased when we had given them some knives.

On the 11th, at four in the morning, we set sail, taking our course along the W.S.W. coast, thinking the examination towards the east unnecessary, having distinctly seen the junction of the land from the point of Chamisso Island. We soon approached a cape, which seemed to me to be the entrance of a bay; but, discovering my mistake on doubling it, I called it *Cape Deception*: this, being formed by a high round rock, rising perpendicularly from the sea, is very perceptible. There were a great number of baydares near it, some of which approached to barter with us; and, by their aptitude at cheating, I found that I had a double reason to call it Cape Deception. This time there were two young girls among them, who excited our attention: they had blue beads in their ears, although their dress was little distinguished from that of the men; round their arms they wore stout rings of iron and copper; their long hair was made up in tresses, and wound round their heads. As soon as we had got round Cape Deception, the land became low, and was lost in the south; at a great distance, in that direction, we saw high hills, and thither I bent my course, in the hope of finding some large river; however, I was obliged to come to anchor at two o'clock P.M., in five fathoms of water, on account of the decreasing depth. In the west, at a distance of six miles, lay a low track of land, stretching first to the north and then to N.E.; in S.E. we saw the high land of the neighbourhood of Cape Deception, and from thence extending to the west, where it becomes quite low. I ought here to mention two hills, which served us as land-marks in our survey, they being higher than the rest. The one lay now S.E. 14° from us, and could not be mistaken, on account of its tops resembling the ears of a donkey, from which it was named *the Ass's-ears*; the second, the top of which is rather extensive, lay S.W. 47° from us, running in a horizontal direction, and representing the

form of desolate ruins, of which but a few towers were remaining; but these, I afterwards found, were stone columns, resembling those found by Saritscheff on the coast of the icy sea. This hill I called the *Devil's Hill*. The weather being fine, I immediately went off with two boats in the direction where we thought we could see an opening; but we had scarcely been 200 fathoms from the ship, when, a thick fog coming on, we were compelled to return on-board. We observed the current run, with the velocity of one knot and a quarter, seven hours out of the inlet, and four in again.

On the 12th, the weather being again fine, we made a second attempt to get to the inlet, but, owing to the decreasing depth, we were obliged to take another course, and landed six miles from our ship, near a small river, which seemed to take its rise in the sea. The land, although rather high, was marshy. Here the company divided; I with Lieutenant Schischmareff pursued the coast to the south, in order to reach the inlet, if possible; the naturalists went into the interior, in pursuit of objects for their studies, and the remaining sailors were to prepare our dinner. After a march of about four miles, we reached a cape, where the land suddenly took its direction from south to west, rising considerably higher; from a hill I perceived in the west a broad arm, flowing from the sea into the land, where it took a serpentine direction among the hills; I was desirous, if possible, to go up it in boats, and soon found that the depth, which even seemed to increase in the middle of the arm, was already sufficient for our boats near the shore; its breadth was from a mile to a mile and a half; the current had its regular changes, running, in some places, at least two knots. We discovered, at a distance of three hundred paces, a cottage, from which an old man and a lad of sixteen, armed with bows and arrows, were coming towards us. About midway from this cottage they stopped on a hill, where they took a firm position, then bending their bows and aiming at us with their arrows, the old man called out to us in a hoarse voice. Having three sailors with me, and fearing we should frighten them by our superior strength, I approached them alone and unarmed; scarcely had they seen me without arms when they quickly threw aside theirs. We embraced each other heartily, brought our noses several times in close contact; and, to prove to them the sincerity of my friendly intentions, I made them several presents. Still they could not entirely conceal their timidity, and they began to be very mistrustful, when they heard me call my companions; they immediately aimed at them, vociferating as they had done before. I therefore sent back the sailors, and Lieutenant Schischmareff came alone unarmed;

who met with the same reception as I had. They then invited us both to their cottage. We entered into a small tent of morses' skin, built in the shape of a cone, where the wife, with two children, was sitting in a corner. Beside the encampment were two boats, one small, like those of the Alioutskans, and a large one, capable of containing ten people, which served them to carry the tent, with the whole family, from place to place. I saw by the skins, of which they had a large quantity, that they were fond of the chace. The lad, a son of the family, with a pleasant lively countenance, expressed great curiosity, and seemed highly interested at our recording the names they gave to several objects, and at the same time was gratified in repeating several words for that purpose. The woman seemed quite indifferent to all around her, except my bright coat-buttons, which she endeavoured to twist off; but, not being able to effect this, she dispatched her children, who, wrapped up in skins, crawled about me like young bears, trying to bite them off. In order to save my buttons, I gave her a looking-glass; but this created a violent quarrel, as they all wanted to look in it at the same time, for which it was too small: I at last interfered, making them look in singly, and each of them sought the stranger behind the glass, not recognising himself in it. The landlord now spread a morse's skin outside the tent, upon which he made us sit down, giving to each of us a marten-skin, for which he received other presents in return, but he seemed to attach most value to our tobacco. The woman wore iron and copper rings round the arms, and beads in her hair. I wished to know of the old man how far the inlet might extend. He understood me at last, and explained his answer by the following pantomimic gestures: he sat down upon the ground, rowing quickly with his arms, which occupied him interruptedly nine times, as often closing his eyes and laying down his head in his hand; by which I understood that it would take me nine days to reach the open sea by this arm. We now returned to our boats, accompanied by father and son, who went with us at my request. The old man was of the middling size, strong-made, and of a healthy appearance; he had projecting cheek-bones and very small eyes; and, in common with the other natives of these parts, had the morses' bones in the holes under the under-lip; these orifices look particularly disgusting when the bones are taken out, as the saliva constantly ruins down the chin. They both accompanied us in light skin shirts, barefooted, and their heads shorn and uncovered. The father I should think was about forty years old. During our walk we collected several of their words, which bore a great similarity to those collected by Cook in Norton Sound. Upon

enquiring how he had got the beads, a knife, and some other European goods, he pointed to the entrance of the sound, where people come to them in boats, exchanging beads, tobacco, and wood for their bows and arrows, and for skins and ready-made dresses. Their method of dealing he explained very intelligibly: the stranger first puts some goods upon the shore and withdraws; the American comes, examines the articles, puts as many skins beside them as he intends to give, and he also withdraws; then the stranger, approaching again, examines what have been offered to him; if he is satisfied, he takes the skins with him, leaving his goods behind; if dissatisfied with the bargain, he leaves the whole, again retiring, and waiting for an addition to be made by the purchaser. In this manner, I understood the trade is carried on without a word being uttered, and there is no doubt that the Tschuktschi procure from here the skins for the Russian trade. When my three sailors joined us, the Americans were so terrified that their friendly disposition prompted them to remain with us, and we proceeded arm in arm joking and laughing, a disposition which the savages appeared to assume. Our conversation was interrupted by the appearance of an animal, in many respects resembling a squirrel, but much larger, and living under ground. In Siberia it is called *Gewraschka*; the Americans, who make very neat summer-dresses from the skins of these animals, which are found here in great numbers, called it Tschikschi, (the *sch*, as every where else it occurs, is to be pronounced like the English *sh*.—*Transl.*) We tried to catch one for our collection, and we should not have succeeded had it not been for the assistance of our friends, who laughed heartily at our awkwardness. While we were proceeding I perceived a snipe, and, wishing to ascertain whether our companions knew the use of fire-arms, I shot it. The report struck them with the greatest terror, and they looked at each other, not knowing whether to run away or to stay; at length, finding they had suffered no personal injury, they took courage enough to cast a timid glance at my piece; the old man, however, who had hitherto carried a musket, without knowing what he had in his hands, immediately returned it to its owner. The dead snipe, which he dared not touch, seemed to increase his timidity: the astonishment they manifested at this extraordinary event is indescribable. At a short distance from our encampment we met Mr. *Choris*, with a book, in which he had sketched several Americans of the neighbourhood. Our friends were much pleased with it, but were perfectly astonished when Mr. C. had slightly sketched the features of the old man, while we were walking; the lad was convulsed with laughter, when he saw his father's

outline upon paper. - Having arrived at our encampment, we immediately sat down to dinner, while our friends admired the many novelties they saw, particularly the use of the knives, forks, and spoons. We gave them some meat and biscuit, which they preserved. After dinner we embarked, taking our course towards the inlet. The natives, whom we had left upon shore, we perceived a long time in the neighbourhood, carefully looking about, to see whether we had left any thing which they might secure.

We sailed round the cape, which forms the entrance to the arm, and where the land suddenly takes its turn to the west. Our endeavours to advance far upon it were fruitless, as we were running every moment upon shallows. Nevertheless, there must have been a navigable track, the depth being often from two to three fathoms close to a shallow, and the current running two knots, at the same time. Even the shallows were formed by the current, which could not have been the case had the arm closed soon. The account of the American was therefore probably correct, and this arm runs either into Norton-Sound or Schischmareff-Bay. After having in vain perplexed ourselves in seeking a passage, we landed close to the hut of our friend, being all much fatigued. He seemed to be frightened at our coming so near to him; as he packed up his tent, and, with his family, quietly left this side of the shore in his large boat. I saw him rowing upon the arm, sometimes to the right, sometimes to the left, probably to avoid the well-known shallows; and, at last, after many windings, he landed upon the opposite shore, where he pitched his tent.

The water in the arm had the taste of snow-water. The weather to-day was exquisitely beautiful, not a cloud obscuring the sky, whose azure resembled that which is only seen in higher latitudes; the natives of Baring Strait may well say, Nature is truly beautiful!—Towards the evening, the sentinel announced eight baydares under sail. The visit was intended for us, as we had seen them some time before, setting sail from the neighbourhood of Cape Deception; however, our arms being in good order, we waited for them without apprehension. The baydares, each carrying twelve men, landed near the south cape of the arm, just opposite to us, within the distance of a short mile, where they were dragged on shore to be used as tents. The Americans lit several fires, round which they laid themselves down; the dogs, of which they had a great many, ran about the shore. Notwithstanding our disproportionate number, (there being only fourteen of us,) we could not forego the repose we so much wanted; I therefore placed three sentinels with loaded muskets, with orders to fire on the least suspi-

cion, while I laid down on the ground with the rest, our loaded guns lying by the side of us; the savages seated themselves round their fires, bawling and beating upon drums.

Fearing so great a loss of time, I postponed the examination of the arm for the next year, when I hoped to continue it by the means of baydares from Unalaska. I named this the *Bay of Good Hope*, because I had actually reason to hope that I should make valuable discoveries in it. The shores on the north side of the arm rise to a considerable height, but the farther they reach in that direction, the lower they prove, and a multitude of small lakes and rivers are met with. The south shore of the arm is low, as far as the eye reaches, and only begins to be mountainous fifteen miles from hence, in the vicinity of Devil's-hill; and, although the land is beautifully verdant, there are no shrubs. At one o'clock in the morning we started; the fires of the savages were still burning, and their noise continued which, together with the darkness of the night, concealed our departure from them. Having got out of the channel, we bent our course towards the ship, but, not perceiving it, we endeavoured to steer our course by the direction of the land. We had scarcely rowed an hour, when we got upon a shallow; it being low-water, all the places, which we had got over before with perfect ease, had been changed into sand-banks, and we heard the beating of the surf all around us. We rowed in another direction, and again got upon a bank, where we were in danger of being swamped; a violent wind increased the danger of our situation; the boat leaked considerably, and we were all much exhausted: I saw no prospect of escaping immediate death, being in momentary apprehension of the boat upsetting in the surf. The baydare which carried our scientific gentlemen had got away from us, and some shots of distress which we heard from that direction increased the horror of our situation; we answered by firing a musket, but could not go to their assistance. At last the dawning of day relieved us all; we saw the line we had to take, to escape from the surf, and the baydare was near us. The sailors now made their last forcible effort to cut the surf (the only means of escaping it), and we were saved. The baydare, being lighter, got through it with little difficulty. Still we had to contend with the wind, but this at last subsided, and we reached the Rurick on the morning of the 13th of August. We were greatly indebted to the courage of our sailors, for our preservation, and it is with pleasure, I publicly declare, that, during the whole voyage, I had every reason to be satisfied with the conduct of the crew. Their undaunted courage and perseverance have always pleased me; their conduct was exemplary, and I always per-

ceived that, in known as well as unknown places, they uniformly acquitted themselves with zeal and indefatigable industry. By this means, even a dangerous enterprize, with Russian sailors, becomes a pleasure. We were visited by Americans in two baydares, who, in selling their small articles, employed every artifice to cheat us, laughing violently when they found they could not succeed. The general rule of producing the worst articles first, they have probably learnt from the Tschuktschi, and these again from the Russian traders. When we refused to take any thing more of them, they produced from the lowest part of their boat some fox skins, which, however, we did not feel inclined to purchase, since they would only part with them for long knives. One of them, who seemed to be the chief of the party, at my invitation, ventured upon deck, the only one of the inhabitants of the Sound who had sufficient courage. His amazement was very great; he looked on all sides without uttering a word, but he left us after a quarter of an hour, to entertain his listening companions with the wonders he had seen. We gave him a slate, intimating to him that we wished him to draw the direction of the cape upon it; he took the pencil, and actually drew the cape at the south entrance of the sound, which he represented as a bending promontory; he then pointed out a number of habitations, which he called *Kegi*, and whither he invited us. We saw in his boat an iron lance, which we recognized as being of the manufacture of Siberia; where they are only made for the trade with the Tschuktschi. Their dinner-hour having arrived, they placed a seal, they had just killed, in the midst of them, ripped open its belly, and each of them put his head in, to suck the blood from it. After having drank sufficiently in this manner, each of them cut out a piece of flesh, which they ate with the greatest relish; their horrid faces during such a meal were truly characteristic.

At nine o'clock A.M. we heaved anchor, in order to pursue the N. coast. The latitude of our anchorage we found $66^{\circ} 16' 39''$, long. $163^{\circ} 41'$; the declension of the needle 27° E. We noticed the falling of the water on the land, which takes its direction from the Bay of Good Hope to the N., but could not get near it, on account of the shallow, observing it only from the mast-head. At ten o'clock we saw the extreme point of the land in S.W. 85° . This cape was at a distance of six miles from us, and formed the south entrance into the sound. I named it *Espenberg*, after the gentleman who made the voyage round the world in company with Krusenstern, being a friend of mine. On the 4th, at eight o'clock A.M., we had reached the cape which forms the north entrance to the sound, and which

I named *Krusenstern*. On entering the sound, I discovered that what I had taken for islands in the N., was very high land; upon a low neck of land, stretching from thence to the W. we saw several habitations and people, and even two baydares, which endeavoured to overtake us, but without success, the Rurick sailing very fast before the wind. We noticed a building on an eminence, resembling an European warehouse; the dwellings on the neck of land, being under ground, looked like small round hillocks, enclosed by whale-bone. From Cape Krusenstern, the land takes a bend to the N.E.; and, then stretching to N.W., it ends with a cape, which I took for Cape Mulgrave. By our calculation, it lies in $67^{\circ} 30'$. Cook, who made no observation on that day, gives it in $67^{\circ} 45'$, making a difference of $15'$; but, if it is considered that we, at a distance of 35 miles from the cape, might have made a trifling mistake in the latitude, and that with Cook, too, who had no observation at all, some error might still have been made; the medium of our two latitudes will, probably, come nearer the truth, which is $67^{\circ} 37' 30''$. Our longitude of Cape Mulgrave perfectly corresponds with that of Cook.

My instruction was to look out for a safe anchorage in Norten Sound, and the next year to continue my examination of the coast; but, having found a hitherto undiscovered sound, with the safest anchorages, and where a land expedition must be much more interesting than in Norten Sound, I deemed it necessary to take that course. By the general wish of my ship-companions, I gave to this newly discovered sound, my name—*Kotzebue Sound*. This sound must, in time, become very profitable for the fur-trade, that article being in great abundance about here; and we might have returned with a rich cargo, had trade been our object. According to my opinion, our government might form a few settlements on the coasts of Baring Strait, towards the north, like the English Hudson's Bay Company, who extend their trade far W. from that bay; they possess colonies in the interior of the country, at a very short distance from the newly discovered sound, and will, undoubtedly, soon profit of this opportunity for trade. Hitherto, Baring Strait was dangerous to navigators, there being no harbour known where ships might take shelter in any case of emergency. Those who in future visit the Strait, will find the advantage of this discovery. The inhabitants of this country are, without exception, of a healthy appearance, and seem to live only upon the flesh of marine animals, which, for the most part, they eat raw. We scarcely saw any fish upon all the American coast, having always thrown out our hooks in vain; and I am, therefore, inclined to believe, that either there never



Nichols & Son sculp. 352. Strand.

The Glaciers of Kotzebue Sound.

are any, or, at least, that they did not come here this season. Tobacco is held in great repute, they chew, snuff, and smoke it, and even swallow the smoke.

The water in the sound, by daily observations with the areometer, we found very sweet, which was probably caused by the thawing of the ice; perhaps, too, there is some large river in the vicinity, which may have escaped our notice; upon the whole, we found that the water on the American coast contained much less salt than that on the Asiatic. The most prevalent wind during this month, which was violent at sun-rise, and abated at its setting, was S.E.; the weather was, for the most part, clear. I am of opinion, that by S.E. wind, the Cape Prince of Wales keeps off the fog from the coast, because, at a few miles from shore, the fog is very thick. The barometer regularly stands higher in S.E. than any other wind, without being influenced by the state of the weather, of which circumstance I shall only mention one example: with S.E. wind and dull weather, the barometer stood upon 30.20., by N.E.; and, during the brightest weather, it stood 29.10. The mean stand of the barometer outside the sound was 9° of warmth; within, $+ 11^{\circ}$; all this relates to the American coast.

From Kotzebue Sound to Unalaska.—I intended spending a few days upon the Asiatic coast, in order to compare its inhabitants with the Americans; I therefore took my course to the south, to see the land near Cape Espenberg. At noon, our observed latitude was $66^{\circ} 48' 47''$. In the vicinity of Cape Espenberg we distinguished two hills S.E. 18° , and Cape Krusenstern, N.E. 22° . The wind lowered, and, there being a calm on the 15th, we took several distances between the sun and moon, from which we reduced our latitude, at noon, $165^{\circ} 15' 30''$; that of the chronometers only differing by a few minutes.

On the 18th of August, the wind blowing strongly from S. we approached the Asiatic coast, the fog being thicker than we had yet seen it, with a high wind, on the opposite coast; the depth had gradually increased to 31 fathoms, and the temperature of the air altered so much, that it seemed as if it had been changed from a warm climate into a cold one. The thermometer, which, at noon, upon the coast of America, had been standing from $52\frac{1}{2}$ to $54\frac{1}{2}$, Fahrenheit, here only pointed to $43\frac{1}{2}$; the water, too, was here much colder, which was probably caused by the high icy land; the stand of the barometer we always found lower here than on the opposite coast. The direction of the current in Baring Strait was always to N.E., and stronger on the Asiatic, than on the American coast. Here a great drove of whales and morses sported around us.

The latter have a singular appearance, holding their heads horizontally over the water, in which their uncommonly long teeth acquire quite a horizontal position. In the morning I noticed some very dark blue spots, different from the colour of the water. Fearing we had got upon a shallow, I had the plummet thrown out, but we ascertained that the spots were occasioned by several collections of small fish. At 3 o'clock, P.M. the fog cleared off, and we saw the East Cape S.W. 45° , at a distance of 12 miles from us. We were obliged to tack, and at 7 o'clock, P.M. we had the East Cape S.W. 17° , the isle of Ratmanoff S.E. 39° , from us, the weather being gloomy and the wind brisk. On the 19th. when by our ship's account we supposed we were near St. Lawrence Bay, we found ourselves, on the clearing up of the weather, at a short distance from the East Cape; the current having driven us 50 miles within 24 hours to N.E., somewhat better than 3 miles an hour. I calculate the current on the Asiatic coast, in the greatest depth of the navigable track, at 3 miles an hour, when the wind blows briskly from the South. The constant N.E. direction of the current in Baring Strait, proves that the water meets with no resistance, and, consequently, that there must be a passage, although it may not be calculated for navigation. An observation has been made, long since, that the water in Baffin's Bay runs to the south, consequently there is no doubt that the mass of water which enters Baring Strait takes its course round America, re-entering through Baffin's Bay into the ocean.

As it seemed I was destined to visit the East Cape, I bent my course towards it, keeping on the north side, to protect myself against southerly winds. It is formed of very high land, which in some places is covered with perpetual ice, seeming at a distance to form only a narrow neck of land, extending far into the sea; which is, probably, the reason why Cook drew it in that shape upon his chart. But, at a distance of from five to six miles, a very low track of land is discernible, which, being connected with the hills, deprives the cape of the form of a neck of land. At the extreme point of the cape is, upon the low land, a hill of a conical shape, which rises horizontally out of the sea, and, the top of which having fallen down, it is open towards the sea-side. This place has a gloomy appearance, from the black wild confusion of fallen rocks, one of which, a pyramidal shape, is particularly remarkable. These significant ruins put Man in mind of the great revolutions which once took place here; for the appearance, as well as the situation, of the coast, justify an idea that Asia and America were formerly connected, and that the Gwozdef Islands are the remains of the connecting land between East Cape and that of Prince of Wales.



○ Inhabitants of Kootenai Sound.

Towards the west the low land forms a bow, upon which we saw several subterraneous habitations, in the shape of small round hillocks, enclosed with whale-bones. We sailed towards them, and, at noon, cast anchor in a depth of eighteen and a half fathoms, over a clayey ground; the habitations lay S.E. 4° , two miles from us; the pyramidal stone S.E. 64° . A baydare with eleven men immediately approached us, rowing several times round the ship, without speaking a word; and, although they well understood our signs of invitation, they would not come on-board; but pointed to some skins, and then to their habitations, whither they invited us, on their returning, having probably been sent out to reconnoitre. Among their arms we noticed a musket: if the Russian trader frequently takes the liberty of selling them muskets, it may be productive of dangerous consequences in the Russian colony in Kamtschatka; for, if a warlike nation like the Tschuktschi were provided with fire-arms, the former colony must tremble before them.

We went on shore in two boats. Our reception was apparently cordial, yet not without being mixed with mistrust, for they would not let us get as far as their dwellings; fifty men met us, armed with long knives, obliged us to sit down upon skins close to the shore, while they sat in a circle round us; the other half were concealed behind their dwellings, where they seemed to have placed themselves in reserve. These precautions prevented us from seeing their dwellings, our abode on shore being rather unsafe; yet we conversed with them as much as we were able, and to the leaders, who sat by me separated from the rest, I presented a few trifles, at the same time hanging a medal round their necks. Their very filthy dresses, squalid ferocious countenances, and their long knives, gave to this group the appearance of a banditti; and from their conduct, which became gradually very daring, I concluded they frequently had intercourse with Russians. These people, in their exterior, are little distinguished from the Americans; their boats and arms are the same, and their lances consist of a broad piece of iron, like those we saw on the American coast; they also wore beads, yet of a smaller description. The chief distinction between these two people, are the bones under the lip, which the Tschuktschi are without, and perhaps the latter are somewhat taller and stronger made. The women had probably fled, for we did not see one. After an hour's stay we returned on-board, followed by three baydares, with the two chiefs in them; before they went aboard, each of them presented me with a fox-skin, after which they came up with their attendants, without the least ceremony. They relished our biscuit and brandy very much.

The tobacco they did not smoke, but they snuffed and chewed it. At my invitation the chief, with some others, went down with me into my cabin, where nothing attracted their notice so much as a large looking-glass, before which they stood as if they were fixed. With much gravity they stared at their shadows, and, when at last one of them moved, and the motion was repeated in the glass, they were all horror-struck, and left the cabin without uttering a word. One of those upon deck became curious, on hearing the account of the others; I took him down, but he did not venture to go in, only putting his head through the door, and, when he recognized himself upon the first look, ran back with all speed. I have generally remarked, in my voyages, that the northern nations are afraid of the looking-glass, whilst those of the south are much amused with them.

In the afternoon we set sail again. On our anchorage we found the current a mile an hour towards N.E.; it was very weak on account of the East Cape, which protected it from the south. Thousands of morses sported round the ship, roaring like bulls; now and then whales made their appearance, throwing up high fountains. One of a particularly large size, covered with sea-grass and shells, threw his fountain so high that the spray flew in our faces, an event which was not of the most pleasant kind, the water thrown out in this way being of a very disagreeable smell; at the same time, he kept long enough above water for a whaler to have killed him twenty times.

On the 20th of August, we had a brisk wind from N.E. We sailed, by the log, seven knots, and nevertheless advanced but slowly; thus, the current keeps its strength from the south even with a brisk north wind. Till noon we had a great fall of rain, with fog; nevertheless we sailed straight towards St. Lawrence Bay, and, just as we were necessarily about to have bright weather, the rain and fog disappeared, and the bay lay before us.

At three o'clock we turned round the small sandy island by which the harbour is here formed, and cast anchor over clayey ground, in ten fathoms of water. In the N.E. we perceived some Tschuktschi tents, upon an eminence; the western point of the low island lay 30° S.W. of us. Two baydares, with twenty men, soon approached us; they sang loudly, but kept prudently at some distance, till I beckoned to them, when they fearlessly came on-board. I went on shore with two boats, to visit them in their dwellings, and, at the same time, to fill some casks with water; our Tschuktschi followed us, well pleased with the presents we had made them. Before reaching their cabins, we were obliged to cross an eminence, upon a difficult road, over ice and fields of snow, and marshy moss-

ground. The ice and snow had been lying here since the last year, and in this situation we saw the whole coast, while on the American side, the tops of the highest hills are free from snow; there the mariner sees the fields covered with green sward, whilst here only black mossy rocks covered with snow and icicles burst in view. Pitiabie as this country may appear as a constant residence, the natives are perfectly happy and contented, though even abandoned, as it were, by nature. We found twelve summer-dwellings, made of scaffoldings composed of long poles placed together in the form of a pyramid, and covered with the skins of various marine animals; the fire is lit in the middle of the dwelling, which has a hole in the roof to let out the smoke. These huts were larger than any I had seen before; they were twelve paces in diameter, and from 12 to 18 feet high; their inhabitants seemed to belong to a wandering tribe, as I concluded from the number of sledges which they had brought with them, to collect, during the summer, the whale and other blubber for the winter; this business being over, they return to their rein-deer in the interior. The tents formed one row, that of the chief standing in the middle; he was a venerable old man, of healthy appearance, but had already lost the use of his legs. They had all fearfully withdrawn into their dwellings, where it seemed they were preparing for defence, except the old man, who sat, with his two young ones, upon a skin which was spread before the tent, and invited me to sit down on his right side, when he learned that I was the commander. His first endeavour was to ascertain whether there was any one with me that understood their language. I had only one sailor whom I brought from Kamtschatka, and who, knowing the Kariak language, understood a few words of this, and he became very useful to me, although his knowledge did not extend very far. They did not understand one word of Krusenstern's vocabulary. The old man, at my request, promised to let us have some rein-deer, but, at the same time, gave us to understand that it would take some time, since they were to be brought from the interior. Pleased with this promise, my people having tasted but little fresh food since we had left Chili, I made the old man several presents, who willingly accepted them, but at the same time expressed his apprehension that he might not be able to make an adequate return. On my assurance that I wished for nothing but his acceptance of my presents, he gratefully shook his head, ordering something to one of his people, who, running to the hut, brought out a skin dress, which he laid down at my feet. I remained faithful to my plan of not taking any thing, and entirely gained his confidence, on presenting him with a medal bearing the likeness of our emper-

ror, the value of which I explained to him through my interpreter;* but he seemed already to be aware of it, for he was highly pleased with it. The other Tschuktschi, both men and women, came creeping out of their huts, and seated themselves in a circle round us, pestering us at the same time with inquisitive looks. A young woman was ordered by the old man to wait on me with a dish of whale-blubber, which, however, I declined eating, not having lost the nausea the last meal of the kind created. However, I fully gained the favour of the ladies by a liberal distribution of beads and sewing-needles among them; the latter of which they called *tetita*. On entering the tent, at the invitation of the old man, I found it extremely filthy; an immense large kettle stood over the fire; the place was divided by skins, behind which they had their warm sleeping-places made up of skins: several utensils which they receive from Kolima, convinced me that they carried on a brisk trade with the Russians. It was rather late when we left them, accompanied by frequently repeating the word *taroma*, which they use on meeting and parting.

As far as I am acquainted with the Tschuktschi, I cannot agree with the general opinion, that they have longer faces, and, upon the whole, nothing Asiatic about them; they all have projecting cheek-bones and small Chinese eyes, and, if the heads of some should have a little less of the Asiatic shape, it may be attributed to their proximity to the Russians. They are invariably without a beard, the same as on the American coast; and, upon the whole, I found so imperceptible a difference between these two nations, that I am inclined to think they are of the same origin. The Tschuktschi that we saw here were strong-made, and above the middling size, an observation which I also made there; the dress is the same with both, except that of the Americans being cleaner, and they seemed to work with more skill and taste. Their arms consist of arrows, bows, knives, and lances, the latter always made of iron and ornamented with copper. The knives here are of three kinds; the first, an ell long, is worn in a sheath on the left side; the second, somewhat shorter, is kept under the coat, on the back, the handle projecting about an inch over the left shoulder; the third, only six inches long, is concealed within the sleeve, and only used for work. The women tattoo their arms and faces, here, as well as upon the opposite coast; and we noticed frequent diseases in their eyes, which are probably occasioned during their long winters, where in the open air they

* Near the East Cape one of the Tschuktschi shewed me a copper snuff-box, with the portrait of Catherine.

are dazzled by the snow, and in the *jurtas* they suffer from the steam of the oil.

On the 21st of August we were visited by the inhabitants of the village of *Nuniagmo*, (mentioned by Cook,) with their wives, in six baydares. Before getting on-board the ship, they slowly rowed once round her, during which they kept singing; in each baydare was one man who played upon the tambourine, to which a second was dancing, making, at the same time, the most ludicrous contortions of hand and body. At last they all came on-board, except the women, of whom only one came, and behaved themselves freely, without the least mistrust, embracing, singing, and dancing with the sailors, while a dram which I had given to each of them served to add to their mirth. One of them had a complete Russian countenance, and therefore was called the Russian by the others; even some of us thought that he actually was one, who was not willing it should be known; he was distinguished from the others by a strong beard, which, however, he fearlessly suffered to be shaved off by one of the sailors. I told my guests that I wished to see their dances upon shore, as there was not room enough on-board; this was immediately announced to the baydares, who left the ship with continued shouts. I must notice here that the Tschuktschi and the Americans we saw, form an exception to all other northern people, in their invariable cheerfulness of temper.

At three o'clock P.M., we went on shore, well armed, in three boats. The inhabitants of *Nuniagmo* had encamped upon a level, at a small distance from the tent of our old friend; their baydares were dragged upon shore, and placed in a line, so as to form a kind of bulwark against an attack. Probably this precaution has become a custom with them, from the constant warfare among themselves and against the Americans; and they did not even neglect the precaution with us, however great their confidence might have been. They met us in a friendly manner, and made us sit down upon skins, which were spread opposite the baydares; but, before the dance began, I gave the ladies needles and beads, and the men tobacco leaves, which much pleased them all. The ball opened with a solo-dance; an old, squalid, miserable-looking woman stepped forward and put her body in the most singular and fatiguing contortions, but without moving from the spot; she rolled her eyes and made such grimaces, as created a general laugh. The music consisted of a tambourine and the singing of several voices, which, however, possessed but few charms for an European ear. After this, several men and women performed singly, but without any one of them being equal to the skill of

the old woman. The ball was closed by a peculiar dance; twelve women sat down, close together, in a semi-circle, turning their backs upon each other, the whole group singing, and endeavouring to give expression to their song, by the motion of their hands and bodies. This being ended, we returned to the vessel.

On the 22d, at eight o'clock A.M. we left the Rurick in the barcassee and the baydare, steering S.E., to examine the depth of St. Lawrence Bay. At noon, having sailed twelve miles and a half, we reached the cape at the southern shore of the bay, where Mr. Saritschef's survey closes. We stopped here to make some observations. We found the lat. $65^{\circ} 43' 11''$; and the declension of the needle 23° E.

On the cape we met with some people who attempted to flee from us; but we detained them by our presents, and gained their confidence, to such a degree, that they presented us in return with sixteen wild geese, and two fresh-killed seals. Without losing a moment, each sailor cooked for himself, five geese were sufficient for our dinner, the rest were kept for the Rurick. The bay is not inhabited, but only visited by the Tschuktschi for the purpose of hunting; the geese seemed to have been caught with snares, and the seals had been killed with arrows. These people soon left us, taking their course to the E. at the opening of the bay; and we too, strengthened by our meal, proceeded in our examination to N.W., where the bay took its direction between high hills. The seals we were obliged to leave till our return, having no room for them in our boats. We had proceeded three miles, when we found two rocky islands of tolerable height, but only inhabited by seabirds. That in the E. which was about three miles in circumference, I named after my first mate, *Chramtschenko*; that in the W., which is rather smaller, received the name of the second mate, *Petrof*. Hitherto the depth had been twenty fathoms; between the islands it was only twelve. As soon as the islands are passed, the depth, over a clayey ground, decreases to eight fathoms, and here the water is perfectly calm; ships may stand close to the shore, which would be very useful in case of repairs, as no storm could injure them. After having sailed, since noon, seven miles and a half, we reached the end of the bay, which ends in a round shallow creek, of four miles in circumference. Two small rivers, with excellent water, which have their rise among the high hills, and fall down in several cascades, empty themselves here. We were obliged to land at the entrance of this creek, near the south cape, on account of the shallowness of the water, and here we resolved to stop for the night. The country had even a more melancholy appearance here than in Baring Strait, although we were

in a higher latitude,—a few miserable willow-trees, here and there a crippled plant, and rarely a flower, all this surrounded by high hills, steeply rising from the water, whose tops were covered with snow. The rocks consist of mouldered granite, among which I found some fine pieces of white marble; and in the sand, upon the shore, I noticed the fresh traces of a large bear.

On the 23d we returned to the Rurick, but were obliged to leave the seals behind, which were probably half eaten by the birds and foxes. The Tschuktschi, who in the mean time had killed a whale, and dragged it upon the sandy island, were just employed in cutting it to pieces; they gave us some blubber, and were at a loss to conceive, how we could refuse such a dainty. On our arrival on-board, at eleven o'clock A.M., I was informed by a messenger from our old friend, that four live and three dead rein-deer had been received; he requested me to accept them as a gift from him and his people, and to come on shore to receive them myself. Soon after dinner we went and found the Kuniagos still there, together with the old chief, who had been drawn there on a sledge, with his retinue. At first they delivered to me the dead, and then the live rein-deer,—fine and sportive creatures, which, led by long curries, threw their leaders to the ground; they became still more savage, when they got scent of strangers; and we were obliged to be on our guard, as they were beating about furiously with their horns. The old man asked me whether they had not better be killed? and I had scarcely consented to it, when in one moment, all the four, struck by their owners to the heart, fell dead to the ground. I endeavoured to express my gratitude by some presents, and left the old man and his people, well satisfied with our generosity.

To-day we were yet visited by several Tschuktschi, who, singing and jumping, endeavoured to sell their goods; one boy especially, distinguished himself by his playful dances, and, when I gave him some leaves of tobacco, for some bold leaps, he repeated them, asking me to pay him again, which being refused, he made the most frightful grimaces. Several went into the cabin, where they were greatly terrified; the portrait of my father they took for a saint, and bowed before it, making crosses, like the Russians. One of them wore a golden embroidered dress, which he said he had from a friend at Kolima.

On the 25th, the wind blowing from the S. we were prevented leaving St. Lawrence Bay. We had many visitors, some even coming from Metschigmenski Bay, in five baydares; they went for the night on shore, promising to repeat their visit the next day; having their wives and children, besides all their property, with them; their chief, an elderly man, had a

musket, but it was in a most pitiful condition.—The flesh of the rein-deer we found uncommonly good.

The Tschuktschi sometimes brought us a kind of *Sarana*, similar to that of Kamtschatka, only larger, having the taste of good potatoes. Although we paid well for it, we only got a few, which makes me think they are difficult to procure.

On the 26th, we had a complete calm, which continued till the 27th at noon, when a gentle wind arose from S.E. which, quickly increasing, at two o'clock suddenly turned into a storm, so violent, that I was fearful for my cables. It lasted till midnight, when it began to abate; the lowest stand of the barometer during the storm was 28.70.

On the 28th, towards the evening, the weather cleared up, but a brisk S.E. wind prevented me from going under sail; the barometer rose to 29.44. In the afternoon I went on shore to invite my old friend on-board; to which, after much hesitation, he consented. It was not on account of age, but an idea that we might take him with us for good, that almost made him inexorable. When I told him that the wind was against us, he said, "No wind can stop you, for you sail against the wind!" This idea the Tschuktschi have imbibed from our boats sailing sharp by the wind, and every time we came on shore with contrary wind, they came in crowds to stare at the miracle. The sails upon their baydares consist of a square piece of leather, which, with the flat construction of their boats, prevents them from sailing with any but a good wind. At last the old man made up his mind to come on-board; and a stout young man took him upon his shoulders and carried him with ease up and down hill. While I had been engaged with the invitation, one of the Tschuktschi, of Metschigmenski Bay, had forcibly taken a pair of scissars from one of my people, and then drew his knife to secure his booty. This affair would have ended in bloodshed, had not chance brought thither one of my friend's party, who immediately rushed upon the thief, and took the scissars from him; his chief also came up to make peace, and, when I reproached him with the misconduct of his people, he, instead of an answer, led me to a spot, where a circle had been drawn on the ground, about six feet in diameter, where the criminal was compelled to run in a short trot constantly on one side. This punishment is as painful as it is strange, for I think no one can run a long time in that manner, without falling. The old man followed me in his own baydare, and was carried, accompanied by two Tschuktschi chiefs, into the cabin, where all three behaved with so much decency, that they might have served as a pattern for many an European I had on-board. The many new subjects they saw here excited their curiosity, and, as it seemed to me, led them to deep medita-

tions. I had tea given them, the use of which they did not know; they waited to see what I would do with my cup, then imitating me, they sipped it. The Tschuktschi live in a perpetual warfare with the Americans, and my venerable guest declared them all, without hesitation, an unjust people. As a proof of what he advanced, he said, that they behaved themselves in a friendly manner as long as they thought themselves the weaker party; but they will rob and murder a stranger, if they are strong enough and can do it without danger; for this purpose, he thought they carried the knives in their sleeves; and they used their women to entice strangers. Some portraits which our draftsman had taken on the American coast, they immediately recognized by the bones under the lip, and one of my guests hastily exclaimed, drawing his knife, "If I met such a fellow, with two bones, I would stab him!" On questioning them, where the Americans received their iron from, they told me, from Kolima. They talked for some time about it; our interpreter, however, only understood that the Americans go by water to the N., in the neighbourhood of Kolima, but we could not find out whether they carried on their trade with Russians or Tschuktschi. On leaving the ship, the old chief reluctantly took my presents, thinking that he could not make me a sufficient return; a scruple which I did not observe in the others, who accepted every thing without hesitation. I gave the old man a sheet of paper, upon which I had written my acknowledgment of his kind reception; he seemed to understand the meaning of it, and kept it carefully. I also requested him to keep some rein-deer in readiness for me, upon my return the next year; and he promised to supply me even better than he had done.

The land about St. Lawrence Bay seems to be very rich in the fur of the *Gewratschka*, an animal that builds its house, which has two entrances, under ground, and usually sits before one of them, whistling. The Tschuktschi drive them out of their houses by pouring water into one of the apertures; and their skins make a light summer-dress. We also met with a peculiar kind of mice, that live in the ground; but we did not see one land-bird.

When the Tschuktschi admire any thing, they frequently repeat the word *Mexenki*; if they call any one, they say, *Tumutum*. The old chief told us, that the stormy weather was near, the last having only been a gentle wind. He gave us to understand, that, in an actual storm, people could not keep themselves on their feet, but were obliged to lie flat upon the ground. The touching of the nose, in bidding welcome, is not customary here. The whale, which they had lately caught,

had been washed away from shore, by the recent storm, and got fast near us; as they had already cut off a great quantity of flesh and blubber from about the head, the hind part became heavier, and sunk. The depth on the spot was 7 fathoms, and this was two-thirds of the length of the fish. I thought this a very long fish; but, in Unalaska, I was told, they measure sometimes 30 fathoms; that kind they call there *Aliamak*, and I was assured that people who are employed at both ends of such a monster must bawl very loudly, in order to be understood by each other.

Latitude of our anchorage, the medium of several observations $65^{\circ} 39' 33''$; declension of the needle $24^{\circ} 45' 0''$. Latitude of the W. point of the low island $65^{\circ} 37' 38''$. Longitude, by the chronometers, $171^{\circ} 12' 30''$.

On the 19th, having left the bay, we were assailed by a violent storm from N.E. by which we were exposed to great danger, on account of its being dark, and the land being so near.

On the 30th the weather cleared up. The 31st, the weather being foggy, I could not, without too great a loss of time, examine the eastern part of St. Lawrence Island, as was my intention; I therefore resolved to make straight for Unalaska, from whence I wished to send a messenger to Kodiak, to get me an interpreter for the next year. Such a messenger goes upon a baydare, with three seats, along the south coast of Aliaksa: at a late season it is impossible to make this voyage, which is a risk even in summer, since these boats, or posts, as they are termed in Unalaska, are often lost.

At noon, we caught the sun for a moment, and found the lat. at $63^{\circ} 13'$, long. of the chronometers by the ship's account, $167^{\circ} 54'$. From here I took my course S. by S. $\frac{1}{2}$ E. in order to examine School Nees; by midnight the depth had decreased from 19 fathoms to $15\frac{1}{2}$, the ground consisting of clay. The wind varied from N.W. to N.E., with gloomy weather and rain.

On the 1st of September the wind blew a gale, which made me give up the examination of School Nees.

On the 2d the sun rose brilliantly, we had a fine day, and I steered with a west wind, S. by S., towards Unalaska. From our observations, at noon, we found the lat. $59^{\circ} 42'$; long. by the chronometers, $169^{\circ} 53'$; the depth, 26 fathoms, over fine white sand.

On the 3d, at 6 o'clock, P.M. the isle of St. Paul was seen S.W. at a distance of 20 miles, from the mast-head; only three hills were visible, scarcely appearing above the horizon, probably the highest spots on the island; which is said to consist, altogether, of low land. Several sea-birds flew about the ship, and were so tame that some of them suffered themselves to be

caught. The next morning, at day-break, we sailed by St. Georgian Island, at a distance of 18 miles west.

At 8 o'clock, A.M. we descried a sail at a great distance in the S., the first ship that we had fallen in with since the Brazils. When we overtook it, we found that she was a schooner of two masts, belonging to the Russo-American Company. She had been taking in a cargo of skins, on the islands of St. Paul and St. Georgian, which she carried to Sittka Island.

On the 6th we were in sight of the N. point of the island of Unalaska, which presents a most dreary and horrid prospect to the mariner, particularly from this side. Black lava-banks rise perpendicularly from the ocean, to points which are perpetually covered with snow. The whole island seems to be formed of a range of pointed hills, lying close to each other, some of which reach above the clouds. To-day the view was less melancholy, even the highest tops being cloudless, and the sun giving a rosy tinge to their icy covers. The wind being contrary, we were obliged to tack during the day and the whole night, in the vicinity of the island. On the 7th the wind became favourable, and we steered our course to the harbour of Illiuliuk, where the American Company has a settlement; but, scarcely had we arrived at the entrance of the port, which is surrounded by high mountains, when the wind entirely fell. It is impossible to anchor before the entrance, there being no ground in a hundred fathoms; and the momentary squalls, from various directions, made our entry dangerous; in the meantime, however, the agent of the Company, Krinkof, came to meet us with five large baydares, of twenty-four hands each, to tow us into port. Several Alioutskan boats, containing one man each, surrounded us. At 1 o'clock, P.M. we dropped anchor in the eastern part of the Captain's harbour, opposite the village Illiuliuk. There could not be a better harbour, if the entry was not so difficult. Mr. Krinkof ordered a Russian bath for us, an accommodation which is quite indispensable to a Russian, after a long voyage. There were only twelve heads of cattle upon Unalaska, and the other Alioutskan islands, belonging to the Company. Nevertheless, the agent ordered an ox to be killed this very day, and sent fresh meat daily for the whole crew; he also supplied us with potatoes, turnips, and radishes, the only vegetables that grow here, from his garden. These fresh provisions renewed our strength, and I had the pleasure of seeing all my men in perfect good health. On the 8th the small vessel, Tschirik, which we had met near St. Paul Island, entered the harbour. I was told by the commander, Mr. Binzemann, an old marine, and a Prussian by birth, that from the island of St. Paul, in very clear weather, we might

discern another island in S.W. by W., which he had been prevented from finding out on his last voyage through the fog. Mr. Krinkof, who had lived some years ago at St. Paul's, confirmed his statement.

I was to have gone to the Sandwich Islands to recruit our strength, and take in a fresh stock of provisions, but, being uncertain whether I could effect the latter in those islands, I resolved to steer from hence to California, where I was sure to find every thing I wanted, in the beautiful harbour of St. Francisco. I took in our water as fast as possible, at the same time giving the Company's agent a list of every thing I wanted for the next year, with which he had been ordered by the directors in St. Petersburg to supply me; my orders were as follows: — 1. One baydare of twenty-four oars, two of one oar, and two with three oars: 2. To keep ready fifteen stout healthy Alioutskans, with their full ammunition, who were skilled in the management of the baydares: 3. To dispatch immediately a person to the isle of Kodiak, to get there, through the Company's agent, an interpreter, acquainted with the language of the nations inhabiting the coast of America, north of the island of Alaksa. This point was very difficult, on account of the lateness of the season; however, we found three strong Alioutskans, who offered to undertake the voyage.

On the 11th of September, yesterday being our emperor's saint's-day, Mr. Krinkof gave a dinner to the whole crew upon shore. In the afternoon we went to a large subterraneous habitation, where several Alioutskans were assembled for a dance. Their sports and dances were, undoubtedly, different in former times, when they were free, to what they are now, when slavery has nearly reduced them to the level of the brute, so as to render their performance neither pleasant nor amusing. The music, consisting of two tambourines, was played by three Alioutskans, with which they accompanied a simple melancholy tune, only formed of three notes. There never appeared more than one female dancer at a time, who after having made a few leaps, without any expression, disappeared among the spectators. The sight of these people, with their melancholy countenances, compelled to leap before me, hurt my feelings, and my sailors, who felt dull, in order to amuse themselves, began singing, while two of them, placing themselves in the middle, performed a national dance. This quick transition pleased every one; and even in the eyes of the Alioutskans, who till now had been standing with their heads bent down, we recognized some gratification. A servant of the American company (Promischllensi), who had left Russia, his native country, when a youth, and had grown old and grey in this region, now suddenly

rushed in, lifting his hands to heaven, and loudly calling out: "These are Russians, these are Russians; oh my dear beloved native countrymen!" A feeling of joy was, at this moment, depicted in his venerable countenance; tears of joy trickled down his pale, emaciated cheeks, and he concealed himself to give a vent to his feelings. He had come here in the hope of enjoying his old age in comfort, and was now compelled, like many others, to end his life in this desert.

From Unalaska to California.—On the 14th of September, we left Unalaska. During our stay the weather had been tolerably warm. I was told that the passage between the islands of Akun and Unimak was the safest, to get into the ocean, and I steered my course in their direction.

On the 15th, at day-break, we sailed round the north point of Akun, and were then in the strait, which appeared clear and safe. The isle of Unimak lay distinctly before us; the majestic peak, which occupies the centre of the island, was free from clouds, and we calculated its height at 5525 English feet. A contrary wind keeping us here, we were enabled to take several observations, and to make a good chart. The strait seems to me to be so safe and capacious, that I recommend it to all navigators. On the 16th, in the morning, we were in open sea.

On the 1st of October, at midnight, we descried by moonlight the Cape de los Reyes, and at four o'clock P.M. we dropped anchor in the port of St. Francisco, opposite the government-house. Our Rurick seemed to throw the place in no small alarm, for, on approaching the fort of St. Toaquin, situated on a neck of land formed of high rocks, on the southern entrance, we saw several soldiers on horse and foot, and in the fort itself they were loading the cannon. The entrance to the harbour is so narrow, that ships are compelled to sail within musket-shot from the fort. On approaching it, we were asked, through the speaking-trumpet, to what nation we belonged, our flag being unknown to them. Having answered that we were Russians and friends, I saluted them with five guns, and was answered by the same number. More than an hour elapsed after we had cast anchor, without any one approaching us, the whole of the military train having left the fort, and ranged themselves opposite our anchorage. At last it occurred to me that Vancouver had not found any boats here; I therefore sent my lieutenant with Mr. Chamisso on shore, to announce our arrival to the commandant, Don Louis d'Arguello, lieutenant of the cavalry, who received them in a friendly manner, promising to provide our ship daily with fresh provisions. A basket of fruit, which he sent me, I found a great treat, not having tasted any so long. He also immediately dispatched a courier

to Monterey, to inform the governor of California of our arrival.

The 3d of October. This morning we were visited by the artillery officer of the fort, as a messenger from the commandant, accompanied by a clergyman of the mission. They both offered us every possible assistance; the former in the name of the commandant, and the latter in the name of the mission. At noon they sent us a fat ox, two sheep, cabbage, pumpkins, and a great quantity of fruit; of the latter I made my men eat as much as they could daily, to counteract any tendency to the scurvy, that might have been produced in their system. I found the *presidio*, as Vancouver described it; the garrison consists of one company of cavalry, of which the commandant is the chief, and who has only one officer of the artillery under his command.

On the 4th we went ashore, in order to ride with the commandant to the mission-house, whither we had been invited to the feast of St. Francisco. We were accompanied by ten horsemen, all fine dexterous men, who use their carbines and lances with the skill of our Cossacks. They owe their skill to the constant practice in which they are kept, for the military in California only serve to protect the mission against the attacks of the savages, and assist the clergy in enlisting Christians among these people, and to keep the converted in the new faith. We arrived in about an hour, although above half our road lay among sand and hills, which were scantily covered with a few shrubs; in the neighbourhood of the mission we came to a delightful country, and recognized the rich vegetation of California. After having rode through a street inhabited by Indians, (for thus the natives are denominated by the Spaniards,) we stopped at a large building, near the church, inhabited by the missionaries; and here we were met by five priests, three of whom belong to this mission, and the two others came from St. Clara, in honour of the solemnity; they led us into a large room, plainly furnished, where we were received very respectfully. On the clock striking ten we entered the church, built of stone, and neatly ornamented, where we already found some hundreds half-naked Indians upon their knees, who, although they neither understand Spanish nor Latin, are not allowed to miss one mass after their conversion. As the missionaries, on their side, do not endeavour to learn the language of the natives, I cannot conceive in what manner they have been taught the Christian religion; and the confusion in the heads and hearts of these poor people, who only know how to mimic some external ceremonies, must indeed be very great. The rage of converting savage nations is now

spreading over the whole of the South-Sea, and produces great mischief, since the missionaries never think to humanize them before they make them Christians, and thus that which was to have been productive of happiness and peace, becomes the ground of bloody warfare: for instance, on the Friendly Islands, where the Christians and heathens constantly strive to exterminate each other. It struck me that, during the whole ceremony, the unbaptized were not allowed to rise from their knees; for this exertion, however, they were indemnified by the church-music, which seemed to give them much pleasure, and which undoubtedly was the only part of the ceremony in which they felt interested. The choir consisted of a violoncello, a violin, and two flutes; which instruments were played by little half-naked Indians, who gave us many false notes. From the church we went to dinner, where we found no lack of provisions and wine, the latter of which the missionaries make themselves. After dinner we were shewn the dwelling-places of the Indians, consisting of long, low, clay-built houses, forming several streets. The filthy state of these barracks was beyond conception, which is probably the cause of the great mortality among the inhabitants, since, of the 1000 Indians that are in Fort Francisco, 300 die annually. The Indian girls, of whom there are 400 in the mission, live, separate from the men, likewise in similar barracks; both parties are obliged to work hard. The men cultivate the ground; the produce of which is received by the missionaries, who keep it in graneries, from which the Indians receive just enough to subsist on. The soldiers of the settlement are likewise kept from it, but they must pay for the flour with ready cash. The women constantly spin wool and weave a coarse stuff, which is partly used for their ordinary dress, and some sent to Mexico, where it is exchanged for other necessary articles. This being a holiday, the Indians were not at work; and instead of which they were playing at various games, one of which required particular skill: two of them sit opposite each other on the ground, each of them holding in his hand a bundle of sticks; and, while they, at the same time, throw them up in the air with great dexterity, they guess whether the number is even or odd; near each player a person is sitting, who scores the gain and loss. As they are always playing for something, and having nothing besides their clothes, which they are not permitted to stake, they work with great labour small white shells, which are used by them instead of money.

The coast of California is so rich in various tribes, that there are often more than ten tribes together, each of which has its peculiar language. On leaving the mission, we were surprised

by two groups of Indians, who also consisted of several nations. They came in battle-array, quite naked, and painted with various colours; the heads of most of them were adorned with feathers and other finery, some had covered their long wild hair with down, and painted their faces in a frightful manner. There was nothing remarkable in the warlike dance, but I regretted I could not understand the words of their song. The physiognomy of these Indians is ugly, stupid, and savage, besides they are well-made, rather tall, and of a dark brown colour; the women are very small and ugly: they have much of the negro in their faces, except that a negro-head, in comparison with theirs, may be called beautiful; what particularly distinguishes them from the negro, is their long straight hair, of the darkest black. The missionaries assured us that their stupidity made it a very difficult task to instruct them; but I rather think that the gentlemen do not trouble themselves much about it; they all told us that the Indians came far from the interior, submitting to them of their own accord (which we also doubted): the religious instruction, they said, was then immediately begun, and, according to their capacities, they were sooner or later baptized. California costs the Spanish government a great sum, without any other advantage than the annual conversion of some hundreds of Indians, but who soon die in their new faith, as they cannot easily accustom themselves to a new mode of life. Twice a-year they are permitted to go home, which short time is for them the happiest; and I have sometimes seen them going, in large numbers, shouting on the road. The sick, who cannot undertake the journey, at least accompany their fortunate countrymen to the shore, where they embark, and remain sitting for days together, casting their sorrowful eyes on the distant hills that surround their habitations; they often stop for several days in this spot, without taking any food, so much are these new Christians attracted by their lost homes. Every time some of those which are on furlough take flight, and probably they would flee away altogether, were it not for fear of the soldiers, who take them, and bring them back like criminals to the mission: but this fear is so great that seven or eight dragoons are enough to keep in check hundreds of Indians.

Two considerable rivers fall in the Bay of St. Francisco, of which that in the north is the largest, and is called by the Spaniards Rio-grande. This river, the missionaries say, is the finest in the world, and is navigable by the largest vessels; at the same time its banks are fruitful, the climate is mild, and the population numerous. The missionaries frequently make excursions upon it, in large well-armed boats, in order to get recruits for

their faith, in which, however, they seldom succeed, the inhabitants being brave and well-armed. We had just come back to the *Rurick*, when a messenger from the governor of Old California, Don Paolo Vincente de Sola arrived from Monterey, bringing me a polite letter from the governor, in which, among the rest, he promised to come himself to St. Francisco, as soon as his business would allow. At the same time I obtained permission to send a messenger to Mr. Kuskoff, for some articles I wanted, and which he could immediately supply me, being in trade with American ships. Mr. Kuskoff, an agent of the Russo-American Company, has settled, by order of Mr. Baranof, who is at the head of all these possessions in America, at Bodegæ, in order to supply the possessions of the colony with provisions from that place. Bodegæ is half a day's voyage from St. Francisco, and is called by the Spaniards Port Bodegæ. The harbour is only fit for small vessels. Kuskoff's larger possessions are a little north of Port Bodegæ.

The 5th.—The *Rurick* required several repairs, which I left to the care of my lieutenant, while I occupied myself with the instruments, which I took on shore under a tent. Our naturalists and draughtsmen were very busy; and, after the days quickly passed in various occupations, we met in the evening to enjoy together the beauty of the climate, in which the officers of the settlement joined us. The military seem to be dissatisfied both with the government and the mission, having received nothing for these seven years, and being almost entirely without clothing; at the same time, the inhabitants are entirely deprived of European goods, since no trading vessel is allowed to enter any port of California; and it is truly lamentable to see this beautiful country thus neglected.

On the 16th, the governor arrived in the fort.

On the 17th, a large baydare from Mr. Kuskoff arrived, loaded with all the necessary articles. At noon the governor dined with us in our tent on shore. We found him a very amiable gentleman, and afterwards spent many pleasant days in his company.

On the 18th, I sent word to Mr. Kuskoff, that the governor wished to see him here respecting his establishment at Bodegæ. The governor told me there were several Russian prisoners in California; they were part of the crew of a vessel belonging to the Company, which had been carrying on trade upon this coast, contrary to the Spanish laws, and had been seized by the soldiers, while they were on shore, without suspecting any danger, and were thrown into prison. By the express command of the Viceroy of Mexico, the governor was interdicted from

surrendering them to Mr. Kuskoff, but he had no objection to give them up to me, if I would carry them away ; but my ship being too small, I could only take three of them, and I selected those who had been some time in the service of the Company. Besides these, I took on-board Mr. Elliot, with the intention of leaving him, at his own request, on the Sandwich Islands. *John Elliot de Castro*, a Portuguese by birth, came to Sittka on-board an American vessel, in which he had been engaged by Mr. Baranof, to accompany the ship destined for the coast of California, as supercargo, and had been taken with the rest.

On the 23d, the governor amused us with some interesting sport between a bull and a bear ; the latter are so frequent in this country, that on going only a mile from the houses into the woods, we could meet with them in great numbers. The species differs from ours by a pointed head, and of an ash-grey colour ; they are also more active and daring. Nevertheless, the dragoons here are so dexterous and courageous, that they are sent out into the wood for a bear, as we should order a cook to fetch in a goose. They go on horseback, with nothing but a rope with a running-knot in their hands, which is sufficient to overpower a bear. As soon as the enraged animal is about to rush on one of them, another throws the knot, which is fixed to the saddle by a strong curve, round one of his fore-paws, and, galloping off, throws him down ; immediately the other throws a knot round his hind-leg, and thus the third is able to tie his fore-legs together, after which they carry him home without danger. In this manner, the dragoons had brought one to-day, while others had gone in the same way to fetch a bull. The cattle being, upon the whole, abandoned to themselves, have become savage, and are likewise caught with knots by a few horsemen, when they are wanted to be killed. The battle between these two animals was very remarkable ; and, although the bull several times tossed his furious opponent, he was overpowered at last.

On the 29th, the governor returned to Monterey. One of the Russians, whom I had taken here on-board, being out a hunting, was so injured by the explosion of his powder-horn, that he died in consequence of it.

On the 1st of November, the *Rurick* being in excellent trim, well furnished with provisions, and my men in perfect health, we heaved anchor, and at ten o'clock A.M. were out of the bay. At a distance of two miles in sea, we heard the piercing howlings of the sea-lions, that lay upon the stones on shore. Sea-otters are very frequently met with upon the shores of California ; and, as they had not been seen here at all in former

times, it is to be supposed, that they have withdrawn hither from the Alioutskan Islands, and from the northern parts of America, to escape the persecutions they were exposed to there.

After repeated observations on shore, I obtained the following results:—Latitude $37^{\circ} 48' 33''$ N.; longitude, calculated from distances of the sun and moon, of which we had taken all together 125, in various days----- $122^{\circ} 12' 30''$ W.

Dip of the needle ----- 62 46 00

Declension of the needle----- 16 5 00 E.

The medium of our observations in St. Francisco yielded for the high tide in full moon 1 hour, 50 minutes. The greatest difference in the height of the water amounted to seven feet.

From California to the Sandwich Islands.—On the 11th, lat. $25^{\circ} 5' 55''$, long. $138^{\circ} 1' 16''$. The favourable wind from N.N.W. and N.E., which had accompanied us hitherto, left us. Strong squalls from S.W. followed it, which continued with rain and a completely covered sky. At eight o'clock P.M. it being quite dark, we saw the heaven in the zenith, for the space of fifteen seconds, so strongly illuminated, that we could distinguish the objects on the castle as clearly as in day-time.

On the 13th, we were already in lat. $23^{\circ} 46'$, without meeting with a trade-wind; on the contrary, the south-west became more fixed, and at last rather violent. At this great distance from shore, a S.W. wind between the tropics is to me a phenomenon which deserves to be mentioned.

On the 16th, lat. $22^{\circ} 34'$, long. $104^{\circ} 25'$, we had at last a calm, and we obtained the long-expected trade-wind; a change probably occasioned by the eclipse of the sun which we had. As long as the wind from S.W. continued, we noticed, every evening, strong lightning in the south.

We found the company of Mr. Elliot de Castro very agreeable; he had tried his fortune in all parts of the world, but, as soon as he had acquired a little property, he lost it again by unlucky speculations, and had even been imprisoned, once in Buenos Ayres, and afterwards in California. Two years ago he was physician and first favourite of King Tammeamea, having staid a long time on the Sandwich Islands. The king had granted him a large portion of land, and he went on very well; but his thirst for wealth drove him to Sittka, to Mr. Baranof, the consequence of which enterprise the reader already knows.

On the 21st of November, at one o'clock P.M., we descried Mount Mauna-Roa, fifty miles from Owhyhee. Upon Elliot's advice, I resolved to double the north side of Owhyhee, in order to obtain information respecting the abode of the king, in the

bay of Tocahai, where the Englishman, Young, resides. Besides the king often lives upon the island of Wahu, and there is a considerable distance saved, by avoiding the south point of Owhyhee, where ships are delayed by calms, caused by the high Mauna-Roa. The N.E. coast of Owhyhee affords a picturesque but not an inviting aspect. The land rises gradually to a great height, which disappears in the clouds. The island is said to be sterile on this side, but it seemed, nevertheless, to be very populous. Elliot said, that the land which he possessed on this side could only be used as a pasture for his pigs. An islander came here on-board, offering to sell us a fowl, and some ropes of his manufacture. Elliot, who understood his language, and was recognized by him as the king's naja, (this was the name given to him by the king,) learned from him, with some difficulty, that the king was in the bay Karakakoa, and Young (old Hanna) was on the island of Wahu. The taciturnity and timidity of the islander excited our suspicion: Elliot thought that something unpleasant had taken place on the island, and therefore we ought to use the greatest caution. While we conversed with the islander, the boat, which he had fastened to the ship by means of a rope, upset, and the man who was in it fell out, but caught hold of the rope, and dragged himself behind the ship, notwithstanding our sailing very fast. We came-to, and our dealer jumped over-board to untie it; they both had great difficulty in turning it up again, and emptying the water out of it, as the waves were constantly filling it again. As all this was done swimming, the reader may imagine how far their skill in this art went. At last they sat in it, but then they missed their oars; this however did not embarrass them, for they rowed off with their hands. At two o'clock P. M., we doubled the north point, sailing three-quarters of a mile from shore, towards Tocahai Bay. Ships doubling the north point of Owhyhee should beware of sudden squalls that are usual there. We saw some musrais belonging to the chiefs of this district, distinguishable by the stone enclosure and the idols within them. Several canoes filled with girls came rowing towards us, but I had no time to attend to the fair sex, and sailed as fast as possible towards Karakakoa, where I hoped to find Tammeamea. The north point of Owhyhee consists of a low land, which rises in a straight line under an acute angle to the clouds. After having reached these parts, the monsoon loses its effect, and we must expect land and sea breezes, frequently interrupted by calms and slight squalls from every quarter of the compass. We now saw Young's settlement, consisting of several houses, built in the European style, of white stone, and surrounded by banana and palm trees; the land has a barren appearance, and

is said to be scarcely capable of cultivation, consisting, for the most part, of masses of lava. A canoe, with six people, availed themselves of the calm to come on-board; one of whom, who had been in Boston with an American ship, and who partially spoke English, remained on-board, when requested, to serve as a pilot. He was likewise of opinion that the king was in Karakakoa, and Young in Wahu; he told us, besides, that there were two ships in Wahu and one in Karakakoa, all under the American flag. When our pilot learned that he was on-board a Russian ship, he became very uneasy, and, on Elliot questioning him on the cause of his fear, he related the following: "Five months ago two Russian ships, belonging to the American Company, had stood-in here; quarrels ensued between the Russians and the natives, in which the latter, (by the account of the narrator,) appeared in a very advantageous position; the ships, on leaving the Sandwich Islands, threatened to return soon with a strong reinforcement, mentioning particularly a man-of-war, that would likewise oppose the inhabitants." We then understood the timid behaviour of the first islanders, and Mr. Elliot had some difficulty in preventing our pilot from jumping over-board. I was glad to obtain this intelligence before my meeting with Tammeamea, and now felt doubly the advantage of Mr. Elliot's presence. A complete calm kept us that day in one place.

On the 23d we advanced but little, on account of the weakness of the wind. In the morning we were visited by a canoe, which came to inquire about our ship. At the same time we were informed that the King had gone to Ti-utatua, a small bay, a few miles farther north, but where he was only to stay that night, going farther up the coast the next day. I immediately dispatched a canoe to the King, informing him of the arrival of a Russian man-of-war, with friendly intentions, the commander of which wished to speak with his Majesty, and therefore requested him not to leave Ti-utatua, where he hoped to arrive to-morrow; the naja, likewise, sent the king word of his arrival. During the night, a brisk wind brought us near Ti-utatua. During the day the current ran S., and during the night N., parallel with the coast,—the consequence of the land and sea breezes.

On the 24th, at day-break, we approached the bay; some boats, sent by the king, came to meet us, and I availed myself of the opportunity to send Mr. Elliot, with our scientific gentlemen, on shore, in order to acquaint the king with the object of our voyage. At eight o'clock, A.M. Mr. Elliot settled business to our advantage; he came on-board with two of the most distinguished chiefs, one of whom was brother to the queen,

who welcomed us in the name of the king. There were two athletic men, whose dress of the newest fashion at Owhyhee was very singular, consisting of a black dress-coat and a small white straw hat. I was told by Elliot, that the king had actually expected a hostile man-of-war, and had already given orders to line the whole coast with soldiers; who, to the number of 400, armed with muskets, stood already prepared. The king sent me word that he regretted that he could not come to me on-board, since the jealousy of his people would not permit it; that he, himself, had a better opinion of us, after his naja had acquainted him with the object of our voyage; and, as a token of his friendly sentiments, he invited me to his camp, where he promised to treat me with a pig, baked on the ground. For my security he had ordered that one of the chiefs should remain on-board, while I was on shore; whither I went accompanied by Mr. Elliot, my lieutenant, and a chief, of the name of John Adams, he having changed his name with an European friend, as it is customary in these islands among friends. The king's camp was concealed by a neck of land, formed by bare rocks, but, having passed these, we were surprised by seeing a most beautiful landscape. We were in a small sand bay, protected against the waves, upon perfectly smooth water; a beautiful grove of palm-trees lined the shore, under the shade of which we saw several well-built thatched houses, and, through the green leaves of the bananas, on the right, two white stone houses shone, built in European style, which mixture of buildings gave to the place a singular, yet pleasing, appearance. To the left, close to the water-side, upon an artificial hill, stood the murais of the king, surrounded by large wooden statues, representing caricatures of the human form, and which are his gods. The back-ground of this valley is formed by the majestic mount, *Mauna-Nororay*, the height of which I calculated upon 1687 toises; it rises on this side rather steeply; on its declivity, green fields and valleys change to beautiful woods, between which immensely large and steep lava rocks are frequently visible. A number of islanders, armed with muskets, stood near the coast; the king met us with some of his first warriors upon the landing-place, and shook me heartily by the hand, when we had landed. There were a great many people gathered here by curiosity, but they behaved with perfect order, and neither noise nor importunity was allowed. I now stood beside the famous Tammeamea, whose deportment and unrestrained friendly behaviour inspired me with the greatest confidence. He took me to his thatched palace, which, after the fashion of the country, consisted of one single large room; and, like all other houses here, was exposed to



Jammeamea.
King of the Sandwich Islands.

every wind, by which the oppressive heat is diminished. We were offered some very pretty European chairs, and, a mahogany table being set before us, we were in possession of all the furniture of the palace. Although the king has several houses built in the European style, he prefers this simple habitation, not wishing to infringe upon the manners of the country; every thing that he considers useful he imitates, and endeavours to make his people adopt it; stone palaces he deems superfluous, the thatched houses being more comfortable, and he wishes to increase the happiness, and not the wants, of his subjects: his dress consisted of a white shirt, blue pantaloons, red waistcoat, and black neckcloth; but sometimes, I was told, he dressed splendidly, having several embroidered uniforms, and other dresses. The chiefs, who during our audience were sitting on the ground, cut a very ludicrous figure in their black coats on their naked body; besides, they are generally too tight for them, being purchased from American ships, where the people seldom arrive to the height and bulk of the Sandwich chiefs. One of the ministers had the waist high up the back, the coat was buttoned with the greatest difficulty, and he perspired excessively; his misery was very evident, but fashion did not permit him to get rid of this burden. It is singular that the savages surpass even the Europeans in supporting the inconveniences imposed upon them by fashion. The sentinels at the door were quite naked, having a cartridge-box, with a pair of pistols, tied round their waists, and holding a musket in their hand. The king having poured out for us some very good wine, and having himself drank our health, I acquainted him with my intention of supplying myself here with water and wood. A dexterous and tolerably well informed young man, named Cook, was the only white person in attendance on the king, and spoke the language of the country with perfect ease; he had been mate in a ship, but had been settled for some years on this island, where he had gained the king's favour, and was in possession of a large estate; he now formed an interpreter between us. Tammeamea directed him to speak as follows:—"I am informed that you are the commander of a man-of-war, on a voyage similar to that of Cook and Vancouver, and, consequently, have nothing to do with trade; it is therefore my intention not to enter into any with you, but to supply you gratuitously with every thing my islands produce. This matter is now settled, and requires, therefore, no more mentioning. But I beg you will tell me whether it is the wish of your emperor that his subjects should begin to inconvenience me in my old age? Since Tammeamea has been king of these Islands, no European has had reason to complain of any injury done

him here. I have made my islands an asylum for all nations; and honestly supplied every ship that wanted provisions. Some time ago, Russians from the American colony of Pitka came here; they are a nation with whom I never had any connexion before; they were well received, and supplied with all necessaries, but they have basely requited me, having treated my subjects on the Island of Wahu with great hostility, and threatened to conquer the islands with men-of-war. Yet, as long as Tammeamea reigns that will not take place! A Russian physician, named Scheffer, who came here some months ago, pretended he was sent by the Emperor Alexander, to botanize on my islands: now I had heard the good fame of the emperor, and was particularly pleased with his bravery; I not only permitted Mr. Scheffer to botanize, but also promised him every assistance, granted him a piece of land, with peasants, that might insure him against any want of provisions; in short, I tried to make his abode as pleasant to him as possible, and refused him no demand. But what was the consequence of my hospitality? Even in Owhyhee he repaid my kindness with ingratitude, which I bore with patience; after this he went, by his own will, from one island to another, settling at last upon the fruitful Island Wahu, where he proved himself my worst enemy, by destroying the murai, our sanctuary, and stirring up against me, on the Island of Otuwai, king Tamary, who had submitted years ago to my government. And Scheffer is there at this moment, threatening my islands." This was the king's account, for the truth of which I can only vouch so far as that Tammeamea respects every European of good conduct who settles with him, and his being generally known as a sincere and honest man. Of Mr. Scheffer I have no personal knowledge, but I have since learnt the manner he had got on the Sandwich Islands. He served as physician in the Russo-American company ship Suwaroff, which, under the command of Lieut. Lasaref, sailed in 1814 from Cronstadt bound to Sittka. For reasons unknown to me, in 1815, Lasaref left Dr. Scheffer in Sittka, returning to Europe without a physician. Mr. Baranof, who, as the director of all the Russo-American colonies, usually resides in Sittka, and whose character is none of the best, took him under his protection, sent him, for some unknown reasons, to the Sandwich Islands, and of his conduct there my readers are informed.

I assured Tammeamea, that the bad conduct of the Russians here could by no means be attributed to the emperor, who would never countenance an illegal act from any of his subjects; but the size of his empire prevented him being early informed of such bad actions, which never remained un-

punished, when they once came to his knowledge. My assuring him that the emperor had no intention of conquering his islands, pleased him very much; the glasses were immediately emptied to the health of the emperor, and he became still more open than before. With a vivacity unusual for his age, he kept up the conversation, putting various questions respecting Russia. Cook could not always translate his words, which being peculiar to the Owhyhee language, and so witty, it frequently set his ministers laughing. One of Tammeamea's wives was passing by our house, and wished me a good morning through the door, not being permitted to enter, as this was the king's dining-house. With the king's permission we took a walk with Cook, accompanied by five naked soldiers, as a guard of honor. We visited the favorite queen Kahumanna, who is mentioned by Vancouver, found the two other wives with her, and were kindly received by all of them. The house, inhabited by Kahumanna is neatly built, and very clean within; the floor upon which the three ladies had seated themselves in the Asiatic manner, was covered by fine neat mattings, and they were closely wrapped-up in the finest country-stuff. Kahumanna sat in the middle, and the other wives on both sides of her, and I was invited to sit down on the floor opposite them; her inquisitive questions I answered, through Cook, to her satisfaction. Kahumanna was so polite as to cut a water-melon, and present me with a piece. The chief occupation of the royal ladies is smoking, combing their hair, driving away the flies with a fan, and eating. Tammeamea does not smoke, otherwise the custom of smoking has become so prevalent, that little children begin to smoke, before they walk, and the adults carry it to such excess, as to fall down senseless, and frequently die of the stupor. The tobacco-plant, brought here by Europeans, is carefully cultivated, and has become indigenous; the smell of it is very pleasant, but the tobacco is very strong. They use no tubes; but the pipes which they always carry about them, hanging on their side, form a part of the royal ornament; they were very large, made of a dark wood, and lined with brass, a luxury which is only enjoyed by rich people who can afford it. Kahumanna took a few draughts with great zest, which prevented her from swallowing part of the smoke, making the rest pass through her nostrils; half intoxicated she handed the pipe to me, and was quite surprised at my European stupidity, when I refused, giving it to her neighbour, who, after a short time, passed it to the third wife: as soon as the pipe was empty, a new one was filled, and the circulation began again. The second occupation of the ladies is the arranging of their hair,

fashionably cut short; they only suffer it to grow a few inches over their forehead, smearing it with a white, gummy substance, and then comb it upwards; the white rays thus rising above the brown face, give it a singular appearance. All the three queens were very tall, stout women, above fifty years of age, and seemed to have never been handsome. In their dress they were distinguished from other ladies by several silk shawls. Outside the door sat the king's daughter, a tolerably pretty girl, on a mat; behind her stood a little negro-boy, holding a silk parasol over her head, to keep the sun from her; two other boys drove away the flies with red plumes of feathers; the whole group looked very pretty. When I was going to rise, Kahumanna stopped me, inquiring with great curiosity after Vancouver, who during his stay here had reconciled her to her husband, between whom and her there had been some difference. The intelligence of his death seemed to give her great pain. Having left the ladies, we visited the king's son. Cook told me, that this prince, as the successor, had already entered upon his father's duties, consisting of the discharge of some of the most considerable *Taboos*, the first of which is that no one is allowed to see the prince in the day-time, a crime punishable with death. Tammeamea has done this from political motives, to prevent a revolution after his death; for, as soon as the son has accomplished the first of the royal *Taboos*, he becomes sacred, is connected with the priesthood, and no one will venture to dispute the throne with him. The prince, when he has entered upon the duties of his father, is named, *Lio—Lio*, i. e. dog of all dogs, and such a beast I actually found this one. We entered a small house, where *Lio—Lio*, a long, stout, naked figure, lay stretched upon the ground on his belly, and only lifted up his head idly to look at his guests; near him sat some soldiers with muskets, who guarded the monster; a young, good-looking islander drove away the flies from him with a red bunch of feathers, and I should rather have taken him for the prince than the other. It is a pity that Tammeamea, who has gained immortal fame by his wise government, and laid the foundation of the civilization of his people, should not have a successor, who could continue his government zealously and reasonably. It would be a great advantage for navigation, if the Sandwich Islands were raised to an equal degree of civilization with Europe; and the English, who have taken the islands under their protection, should take care that, after Tammeamea's death, a sensible man succeed him, and no revolution take place. At last the dog of all dogs raised himself, idly gaping at us in a stupid, unmeaning manner. My embroidered uniform seemed to please him, and he spoke fre-

quently about it with his naked chamberlains. I could not learn his age, as no account is kept of it; it seemed to me to be about twenty-two years. I thought that his unwieldy bulk proceeded from his habit of constantly lying down.

At noon we returned to Tammeamea's palace, where I was surprised to find barges from sixty to seventy feet long, built quite in the European style, near the shore, and which are employed in conveying provisions from one island to another. The king endeavours to entice European shipwrights into his country by paying them well. During our walk, we were constantly accompanied by a number of men and women, who were very noisy and jocular, but yet behaved with decency. Tammeamea offered us some wine, and then took us to a small neat house, close by the *murai*, where a table was set out in European style. He pretended that no pork must be eaten in the house where we had been before, on account of his wives being so near; but Young, who knew the king better, thought that he had chosen the house near the *murai*, where he usually partook of his sacerdotal meals, because he wished to offer the pig baked for us to his gods, out of gratitude for the reconciliation with the Russians. The women are interdicted, on pain of death, from being present where the men take their meals, on which account each family has, besides the dwelling-house, two other buildings, one for the men's and the other for the women's dining-place. The cloth was only laid for us Europeans, and the king, with his ministers, ate nothing, although they were present, alleging that pork was *taboo* (forbidden) on that day. The pig, lying upon palm-branches in the middle of the table, was cut up by one of the ministers, with various ceremonies; moreover we were served with *pata-tas*, yams, and baked *taro-root*. During dinner, the king was very loquacious, addressing himself first to me, and then to his ministers, who laughed heartily at his wit. He is fond of wine, but takes it sparingly, though he always took care to keep our glasses filled. After having drank the health of each of us in the English fashion, he called upon us to drink that of our emperor: this being done, one of his ministers handed to me a feather tippet, made with great skill, and which was formerly worn by the king himself, on solemn occasions, the king telling me at the same time, through Cook, although he speaks English pretty well himself, "I have heard that your monarch is a great hero; I love him for it, because I am one myself, and I send him this tippet as a proof of my affection." When we had dined and left the house, the king ordered that my rowers should be well entertained; he gave the charge of them to one of the chiefs, the cloth was laid again, they were invited to sit

down, and were waited upon with the same attention which had been shewed to us. A *canaka*, with a bunch of feathers to drive away the flies, stood behind each of them. Tanmeamea's first walk was to the *murai*: here he embraced one of the statues, adorned with fruit and pork, saying, "These are our gods, which I worship: whether I do right or wrong in thus worshipping them, I know not, but I follow my religion, which cannot be bad, since it teaches me to do no wrong." This expression in a savage, who had raised himself to this degree of civilization by his own energy, shews much sound sense, and was somewhat affecting to me. When the king is in the *murai*, no one is allowed to enter; but we admired, in the mean time, the colossal wooden idols, being a set of most frightful caricatures. The king soon joined us again, taking us to the house where he had first received us; we sat down on the chairs, whilst the chiefs took their places on the floor. This being the king's dinner-hour, he excused himself for eating in our presence, saying, "I have seen how the Russians eat, now you may satisfy your curiosity by seeing how Tammeamea eats." There was no cloth laid, but the provisions were in a distant corner, upon banana leaves, which are used as dishes. Waiters brought them, creeping up to the king, where a chief took them, and put them on the table. The meal consisted of boiled fish, yams, *taro*-root, and a roasted bird, a little larger than a sparrow, which inhabits the tops of the hills, and, being rarely caught, is only brought to the royal table. The king ate very quickly and with an excellent appetite, but conversed all the time; instead of bread, *taro*-paste is used, thinned with water, and reduced it to a soft pap, which, although the king possesses very fine plate, stands in a pumpkin shell on his right side. In this he dips his fore-finger when he is eating fish or flesh, smearing with great skill a large portion of it in his mouth, which uninviting manner of eating is used from the king down to the meanest subject. Tammeamea, who during the meal only made use of his fingers, and perceived that I noticed all his motions, said to me, "This is the custom in my country, and I will not deviate from it." His spittoon-carrier never leaves him a moment, always keeping ready the box made of wood, in the shape of a snuff-box, with a lid, which is lifted up when the king intends to spit, and then is quickly closed again. This careful preservation of the king's saliva proceeds from the superstitious belief that while they possess this treasure, their enemies cannot afflict them with any disease by enchantment. The king having dined, I was told what provisions I was to receive from Wahu, viz. forty-three pigs, a proportionate number of fowls and geese, every kind of



Wade & Son, sculp. 252, Strand.

*View of the Royal Murai in the Bay Titatua on the Island of Owhyhee.
near which the Queen's Habermana, and the King's Daughter*

fruit which the island produces, and as much wood as I chose. The king told me he had sent for a trusty person, who was to accompany me to Wahu, and who was to see that his orders were strictly fulfilled; besides, I should have some one to accompany me into the harbour of Wahu, which privilege is not otherwise granted to Russian ships. I presented to the generous king, in the name of the emperor, two metal eight-pound mortars, with all their appurtenances, on the carriages of which the name Rurick was cut; besides which, I gave him a quarter of a pipe of wine, his stock of that article being exhausted, and I promised to send him some bars of iron from Wahu, which he needed in the construction of his boats. Some very fine large apples, which I had brought from California were somewhat new to the king; he immediately distributed a few of them among his ministers, and, as they all found them very good, the pips were preserved, to ascertain whether the tree would grow in their islands, and of which I had no doubt. The skill of our draughtsman, who had sketched some of the chiefs in a most happy manner and very quickly, was admired even by Tammeamea, but who a long time resisted my solicitations to have himself, as they say here, put upon paper, probably fearing some enchantment; and it was only when I told him that our emperor would be glad to have his portrait that he consented to it. Mr. Choris succeeded admirably well in taking his likeness, although Tammeamea, to make it more difficult, would not set still for a moment, but was making grimaces all the time. At five o'clock in the afternoon we took leave of the king. An attendant not having yet arrived, I promised to wait for him near the land. A well-made quiet horse, which he had obtained from an American ship, he kept as a curiosity, and suffered it to run about free. A number of little boys near the shore had hardened the sand by stamping on it, and drew on it, with ability, the Rurick under sail. I was obliged to separate from Mr. Elliot, whom the king wished to have again; to whom probably we were indebted for our friendly reception. It was sun-set, our attendant had not yet arrived, and, the proximity of the land being dangerous to our ship, I fired a gun, to remind the king of his promise. At eight o'clock Mr. Cook arrived with my attendant, accounting for the delay by his having to come from the interior. He was a lively sensible man, named Manuja: although not a chief, he possessed the king's confidence in the highest degree, who specially shewed it by entrusting to his care some of his most valuable European goods. Cook told me that Tammeamea took no notice of the rank of his subjects, generally choosing his confidants from among the lower orders, and he was seldom de-

ceived in his choice. He treats his nobility with justice, but severity; and, having little confidence in them, he generally obliges them to accompany him on his journeys, by which means he deprives them of any opportunity they might otherwise have of conspiring against him. They have not forgotten that Tam-meamea is the conqueror of their lands, and they would undoubtedly try to regain their dominions, if he did not know how to keep them in subjection. With the assistance of a gentle land-breeze, which always springs up here after sun-set, we began our course to Wahu. I would advise every navigator sailing from Owhyhee to Wahu, to keep near the coast, where the land and sea breezes are the strongest, while, at a distance of a few miles from the land, calms caused by the Mauna-Roa are constant. On reaching the channel between Owhyhee and Muve he will find the true trade-wind, which will carry a vessel straight to Wahu, without having any thing to fear from the Mauna-Roa. For those of my readers who may not understand what is meant by land and sea-breezes, a short explanation will not be without interest. Nearly all high islands between the tropics are perpetually exposed to the trade-wind, the coast situated under the wind, that is to say, the one opposite to that on which the trade-wind blows, produces, in the day-time, a wind from the sea, which blows upon the land, while at night it blows in a contrary direction. The explanation of this phenomenon is very easy: in the day-time the land is so heated by the sun that it is warmer than the sea; whence it is that the air rushes from the cooler parts to the warmer, and produces what is called a sea-breeze. At night it is the reverse; the sea is warmer than the land, and produces the land-breeze.

On the 25th of November, we were becalmed nearly the whole day; the islands of Owhyhee and Muve rose in gigantic importance on each side of us. From my measurements I found that the heights of the highest hills in Owhyhee and Muve were as follow:—

Mauna-Roa, in Owyhee -----	2482,4 toises.
Mauna-Koah, do. -----	2180,1 —
Mauna-Wororai, do. -----	1687,1 —
Highest peak in Muve -----	1669,1 —

During the night of the 26th, we were obliged to keep near Wahititi Bay. In Owhyhee they said that the current near Waihu ran so strong to the west that we ought to take care not to get under the wind of the island; but I experienced the reverse, finding, at day-break, that a current had drifted us eight miles to the S.E. although the wind blew very strong from that direction, and the ship was very much tossed about.

Early on the 27th, I steered towards the west point of *Wa-*

hihiti Bay, distinguishable by the sugar-loaf hill upon it, called by the English, Diamond Hill, from the quartz-crystal found there, and supposed by some to be diamonds, an opinion which is still entertained, and for which reason the natives are prohibited from visiting it. This point we doubled towards noon. Wahu is known as the most fruitful island of the whole groupe, and is called the garden of the Sandwich Islands. The sharp-pointed rocks which form the S.E. part of the island, rising 529 toises above the sea, give no such idea, which however is confirmed on having turned the Yellow Diamond Hill, by the most beautiful prospect. Valleys covered with banana and palm-trees, in which the huts of the savages lie scattered, line the shore; behind these the land rises gradually, all the hills being covered with beautiful verdure, indicating industry. This is the southern part of the island, which runs in a straight line from east to west twenty miles, without any change in the condition of the land. Here too is seen the highest mountain on the island, which is on the N.W. part of it, and is by my calculation 631,2 toises high. We sailed by the village *Wahihiti*, (near which Vancouver anchored on a dangerous spot, without suspecting that he was close to a convenient harbour,) and already saw, through our glasses, the town Hana-rura, which lies close by the harbour of that name. We were met by a canoe with three men; Manuja hailed them, jumped into the water, and soon swam to the boat, in which he rowed to land, in order to inform the commander of the place of our arrival, and to send us a pilot. We were now near Hana-rura, where some houses, built in the European style, formed a striking contrast to the huts of the natives. In the harbour we descried a fort with Tammeamea's flag hoisted upon it; near it were several ships at anchor, and the whole had a European appearance. In the afternoon the governor sent us a pilot; he was an Englishman by birth, named Hebottel, and was employed here by the king to bring all ships into the harbour that came on this coast. At the entrance of it he made us drop our anchor. The depth was eight fathoms, and the bottom was composed of coral and sand. The wind blows here the whole day from the harbour, wherefore the ship must wait outside of it till the morning, a little before sun-rise, when a calm ensues, of which advantage is taken to tow the ship into port. I was sorry to be at anchor in this place, as, by a strong south wind, which often blows near Wahu, a ship is easily lost: a reef, over which the surf broke with great violence, was only a hundred fathoms from us, and yet this is the only place where ships can come to anchor, because a little farther the depth is unfathomable; besides the condition of the anchorage was so far from being good, that our

cables suffered considerably, in the space of twelve hours. The whole coast is surrounded by coral-reefs, some of which extend a mile and more into the sea, and behind these Nature has formed the beautiful harbour of Hana-rura, which is protected on the sea-side by the reefs, and might be called the most beautiful spot in the world, if the entrance were not too shallow for large ships. As soon as we had cast anchor, I went on shore, to pay my respects to the governor, *Kareimoku*; but, although Manuja had gone before us, and acquainted the inhabitants with the king's orders, they were still very much terrified with the appearance of a Russian man-of-war, and betook themselves to arms. On landing, I was received by Mr. Young, an Englishman, and one of the first confidants of the king, who has lived upon these islands for twenty years, and had now been sent to Wahu to build a fort. The armed islanders sent forth the most horrible cries, but Mr. Young encouraged me, and helped me out of the boat. We went, accompanied by a number of soldiers, who kept off the importunities of the mob, to his house, where *Kareimoku*, with the chief nobility, soon joined us. Both he and his suite were dressed in the costume of the country, consisting of a large white dress, made of stuff spun from the bark of trees, and thrown in the Roman style over the right shoulder; besides which they had a cartridge-box and a brace of pistols tied round their naked waists. The whole party came from the fort, where preparations for the defence had already been made. *Kareimoku*'s athletic figure, united to his noble deportment, appeared to advantage in the Roman costume; his countenance betrayed sense, which he actually possesses, for which reason the English on the island give him the name of Pitt. He welcomed me after the European manner, by shaking hands; and, having invited me to a seat, he sat down with his attendants, when my first endeavour was to prevent any suspicion concerning us. His countenance soon cleared up, and he spoke as follows: "The gods are witnesses that we have not wronged the Russians, but they have rendered us evil for good!" I assured him all that Scheffer (about whom he principally complained) had done here, was against the will of our emperor, and endeavoured also to quiet him respecting the future, of which he still seemed to entertain some fear: we then parted with his promising us to fulfil Tammeamea's orders in every respect. In the harbour lay three ships, two of which, one large three-master and a pretty brig, belonged to the king, who had purchased them for sandal. The three-master, which bears the name of *Abatross*, serves for the present as a transport, to carry provisions from Wahu to Owhyhee, but will in future go to Canton with sandal under Tammeamea's flag, to

barter it for Chinese goods. The English government has bound itself to respect his flag every-where, and to support his trade in Canton. The brig bears the name of the queen, *Kahumanna*; she can, according to her size, carry eighteen guns, is built for quick-sailing, like a man-of-war, and is now used by Tammeamea for that purpose. This brig was originally built by the French for a privateer, and bore at that time the name of *La Grande Guimbarde*; she was taken by the English and sold to English merchants, who gave her the name of the *Forester*, of London. This ship came into the South Sea with Captain Piccord, who made several voyages in her from the western coast of America to Canton, and at last sold it to Tammeamea. After the sale of the ship, the second officer, A. Adams, went into the king's service, became the commander of her, and, as such, received fifty piastres a month and all provisions, which were sent to him daily; the crew consisted of six Europeans and some natives. The third ship, the *Traveller*, of Philadelphia, under American colours, was just sailing round, when I arrived with the *Rurick*. The master of her, named Wilcox, whose brother is the American consul in Canton, paid me a visit. Mr. W. had left Canton some years, and had laden his ship with Chinese goods, to carry on the smuggling trade with the Spanish colonies on the western coast of America, but he did not succeed; after many fruitless attempts to land his cargo, being exhausted by the long voyage, he sailed to Botany Bay to recruit his strength, and supply himself with provisions, where the governor of Port Jackson gave him a letter from the King of England to Tammeamea, together with various presents, amongst which were some richly embroidered uniforms. Mr. W. also told me, that, by order of the English government, a fine ship was building for Tammeamea in Port Jackson. By all this it appears, that the English have taken the Sandwich Islands under their especial protection, and perhaps consider them secretly as their property, and will undoubtedly, on the first opportunity, take possession of them. Mr. W. now intended to sail to the coast of California, to try his fortune there. Before we parted, he informed me of a group of islands, which was discovered in 1814, by the ship *America*, Captain Walther, of the United States, while sailing from the Marquesas to Canton. This group is said to consist of low, wooded, coral islands, and to be about thirty miles in circumference. On their west side the captain had found a convenient anchorage and landed there, in order to leave some goats on the island. The observed latitude is, $3^{\circ} 48' N.$, long., by the chronometers, $159^{\circ} 15' W.$ of Greenwich.

On the 28th, at day-break, we fired a signal-gun, and soon

the royal pilate, accompanied by eight double canoes, each with from sixteen to twenty rowers, appeared. In each of them was the owner, called here by the English, Jerri, or Chief, to maintain order in the towing; old Young sat in a small light boat, and directed the whole. The shouts in the boats were gratifying, they joked and laughed, even the work was performed playfully, and the islanders, appeared as sportive as children. We had a perfect calm; the anchors were weighed, and the canoes towed us, with such violence that the Rurick, according to the log, went three miles an hour. In half an hour we had reached the harbour, and cast anchor within a pistol-shot of the land, opposite the fort, in eight fathoms. Young now came on-board, to inform me that the canoes did not belong to the king, and that I had to give to each owner three piasters; for which, as the commander of a man-of-war, I should be exempted on the payment of anchorage-fee, levied here on all merchant ships, which are obliged to pay a piaster for every foot of water that they draw. Although I thought it strange that I had not been informed of it before, I was obliged to submit to the custom, by paying forty piasters. The anchors were scarcely dropped, before a host of Sandwich women, some swimming, and others in boats, surrounded our ship; they all wished to come on-board, and were mortified, when I refused them admittance. I had, in order to undertake the necessary repairs, declared the ship *taboo* for some days; the amiable nymphs, sang us some love-songs, and then turned back, surprized at our severity.

On the 29th, they began to supply us with provisions; we received daily *taro*, *yams*, *cocoa-nuts*, *bananas*, and *water-melons*, in abundance. The hogs were so large, that the whole of the crew could not eat one in two days; on which account more than half the number we received we did not eat; some of which I salted, and the rest I carried away alive. The pork is so well salted by a Spaniard of *Marini*, (who has been here for several years, and was formerly a favourite of the king's,) that I brought some of it to St. Petersburg in excellent preservation. In the Spanish colonies of America, the meat is not salted, because they think that, even while salting, it putrifies: in Chili they take for ship's provisions, flesh dried in the sun, and which has lost all its juice. In hot climates, particular care should be paid to the salting of meat, to take out the bones, and squeeze out the blood, by placing heavy weights upon it.

To-day, a misunderstanding roused the people against us, they had already taken up arms, and the affair would perhaps have terminated seriously, if Young had not interfered in time. The case was as follows:—the harbour of *Hana-rura* not

having been, to my knowledge, surveyed by any one before, and certainly being known but to few navigators, I intended to draw a plan of it, and had therefore long poles, with flags affixed to them, fastened in the ground in several places. The sight of these flags exasperated the people, for Scheffer had once hoisted a Russian-flag, saying, "I take possession of the island," and therefore they had no doubt but I was taking the first step towards a conquest. On Young's representation, I changed the fatal flags for brooms, which restored tranquillity. To gain the confidence of the people completely, I invited Kareimoku to see us the next day. The ship *Abatross* left Wahu to take provisions to Owhyhee.

On the 30th of November, Kareimoku came on-board with his wife, Mr. Young, and the chief nobility (*jerris*), among whom was the brother of Queen Kahumanna; also Young brought his wife, a near relation of Tammeamea. Kareimoku was very friendly; he shook my hands heartily, saying several times, "*Aroha!*" (God be with you); my guests were all in their best dresses; I could scarcely recognize Kareimoku, who appeared in the dress of an English mate, with polished boots and cooked hat; but every thing fitted him so tightly that he could not move a limb, and was almost suffocated by the heat; the other *jerris* moved about, no less pompously, but quite as uncomfortably, forming a strange assemblage of sailors, dandies, and quakers. The rage is so great here, that no person can rest without having some articles of European dress; some only walk in a shirt, some in trowsers, and others strut about in a waistcoat. The Americans buy up all the clothes which have become out of fashion, and then sell them here to great advantage. One of my guests had on an immensely long coat, with buttons as large as tea-cups, with which he seemed unceasingly delighted. The ladies, on the contrary, are quite wrapt up in their native cloth (*Tuffa*), only wearing a silk handkerchief about the neck. Mrs. Young, as the wife of an European, forms an exception, by dressing in rich Chinese silk, after the European fashion. Her pleasant countenance and modest behaviour formed a striking contrast with Kareimoku's wife, a tall stout woman, who behaved in a very masculine manner. There being no room in the cabin for so large a company, the cloth was laid in the fore-castle, but the islanders ate nothing. I unfortunately did not know that pork must be consecrated in the *murai* before they can eat it; not only this, but all the other meats were *taboo*, having been roasted at the same fire as the pork. At my urgent request, however, they at last agreed to eat some biscuit, cheese, and fruit; the wine and spirits did not seem *taboo*, as they emptied their glasses very

frequently. These islanders are passionately fond of spirituous liquors; they empty a bottle of rum at one draught, with the greatest ease, and it is inconceivable how much of it they can drink. The ladies, who were not allowed to eat in the presence of their husbands, kept closer to the wine. Kareimoku proposed the health of our emperor and Tammeamea. My guests were pleased with every thing on-board, particularly with the portrait of my father, that hung in the cabin, and which they fancied was alive, till they touched it. They immediately recognized Tammeamea's portrait; and, when it became known in the country that we had Tammeamea on paper, we daily received a crowd of visitors, who wished to see him. At four o'clock my guests left the ship, well pleased with their reception, since I endeavoured to make up for their lost dinner, by some trifling presents. At sunset, this evening, a *taboo* is to begin for Kareimoku and his first *jerris*, which is to last one night and two days. The higher the people are here in rank, the more holy duties they have to perform, and every full and new moon they have each a *taboo*; as soon as the sun approaches the horizon, they enter the *murai*, which they do not leave again till the appointed time is over. Mr. Chamisso obtained permission to perform the whole *taboo* in the *murai*; he is undoubtedly the first European who has had this favour conferred on him. After Kareimoku had visited me, the inhabitants became convinced of my friendly sentiments, and I could go on shore without any doubt. I therefore went immediately to *Hana-rura*, where the inhabitants behaved very modestly, and seemed to wish me to enter their houses; the whole of the family then collected round me, presenting me with refreshments, prattling and playing like children. Tobacco-pipes are found in every cottage, and smoking seems to be one of their chief enjoyments. The houses in *Hana-rura*, which are sometimes built together, and sometimes detached, resemble those in Owhyhee. Some Europeans, who have settled here, inhabit houses which are something between ours and theirs. The Spaniard *Marini*, who has built himself a house of stone, has introduced many useful plants, and is the only one who has a considerable flock of cattle and sheep. There is a great quantity of cattle in the interior, which, having been brought here some years since by Europeans, are said to have increased very much; however, they have become so savage, that they are only killed with muskets. Every evening a naked islander drives home *Marini's* flock, in which there are even some horses, that he brought from America. An Englishman, named Holmes, has also lived here these thirty years, and formerly occupied Kareimoku's post. As all Europeans who settle here marry

Sandwich women, the original race must in time be extinct. My intention of seeing the fort was frustrated, by a sentinel calling out the word "*Taboo!*" I afterwards learned that admission is refused to every stranger, especially Europeans. Kareimoku is always in the fort, where they are still at work, and the natives not being familiar with the use of cannon, they have appointed an Englishman, named George Berkley, who had formerly served in a merchantman as commandant. The fort is nothing more than a square, supplied with loop-holes, the walls of which are two fathoms high, and built of coral stone. I went to see Young, who shewed me king George's letter to Tammeamea, which was brought by Wilcox. It was written in English, and Tammeamea was styled Majesty. I here give the principal contents of it: "King George, of England, returns his sincere thanks to the king of the Sandwich Isles, for the feather cloak sent to him through the frigate Cornwallis. He assures him of his friendship and protection, informing him that he has ordered the whole of the English navy to treat with respect all ships sailing under the flag of his majesty King Tammeamea." The letter concludes by mentioning the ship which is building for him in Port Jackson, and the presents sent to his majesty; and, from the whole, it appears, that Tammeamea is recognized by the English government as king. All writings which the latter receives, are entrusted to the care of Mr. Young, who possesses the confidence of the king, but he is old and weak, and will probably soon follow his old companion Davis (mentioned by Vancouver,) to the grave. The sun was just setting, when I passed by the *murai*, which Kareimoku, accompanied by Chamisso, and several *jerries* was just entering. This *murai* has been built in great taste, at some distance from *Hana-rura*, because the inhabitants were obliged to destroy the old one, which had been polluted by the intrusion of Scheffer's people. The fury of the natives was unbounded, and, without Young's interference, Scheffer's people would have paid for it with their lives. The procession on entering the *murai* observed the deepest silence; soon after that some came out again from the four sides, lifted up their hands to heaven, and seemed to invoke some one with loud cries; and, after having repeated this several times, withdrew again. Hereupon two fellows rushed out furiously, running with all their speed, in opposite directions, in a circle, round the *murai*; and I withdrew, for fear I should come in contact with them, which would have communicated their sanctity to me, and I should have been obliged to have celebrated a *taboo* in the *murai*, an amusement which I had rather forego, as I expected to have my curiosity satisfied through Mr. Chamisso.

December 4. By Kareimoku's invitation, I was present at a native dance. We were taken to a house, before which a large place was prepared for the solemnity, which was already surrounded by several spectators, mats having been spread for us on the ground in the middle of the circle. The governor sent an apology, through Mr. Young, for his absence, alleging that his lady was so drunk that he could not leave her. However strange this excuse may seem, it was nevertheless true, and I was obliged to admit it. The women here are generally more addicted to drinking than the men. We sat down and the dance began immediately. The music was performed by four men, who, by striking with small sticks upon pumpkins, scooped out, produced a hollow sound, which accompanied the song. Three dancers by profession, who go from one island to another and perform for money, stepped forward, quite naked, with the exception of bracelets of boars' tusks, and leggings, of dogs' teeth. They placed themselves opposite us, beside each other, and expressed, by motions of the whole body, the words of the accompanying song. They were particularly clever in changing their countenances every moment, to adapt them to the motions of the body. The spectators were enraptured, entering at every pause into the circle to bestow gifts upon the dancers, and at last, in their enthusiasm, even gave their silk handkerchiefs. The men having finished, the scene changed, and a number of young girls placed themselves in three rows. Their heads and shoulders were adorned with neat garlands of flowers, their necks with beads, and various other things, and only the lower parts of their bodies were covered with pretty *tapa*; this group looked pretty, as they made the most graceful motions to the monotonous music. The last rows followed the first, and always imitated the motions of those who took the lead. The whole had the expression of pure nature, and gave me more pleasure than the best executed European ballet. The scene of performance was bordered by a hedge of bamboo, behind which a small house stood concealed, and a large hog, guarded by two kanakas, walked to and fro, in front, and was tenderly stroked by every passing chief; these caresses struck me, and I learned, through Young, that in the house was a son of Tammeamea's, a child nine months old, whose education had been entrusted to Kareimoka, and that this was the taboo-hog, which was to be offered to the gods when the young prince performed his first holy duties in the murai. The dance was given in honour of the little prince, although he could take no part in the amusements, and, in fact, dare not appear before a certain age; still his high birth demanded that frequent festivals should be given in honour of him.

December the 10th. During our repairs of the ship we observed that the copper, in many places, was again damaged, and that in a part which was so deep in the water that only a clever diver could repair it. My best swimmer having tried in vain to fix on a plate of copper, Kareimoka sent me one of his people, who happily accomplished the task. To our astonishment he remained between three and four minutes under water, then he rose for a moment to get breath, and dived again immediately. His companion handed him the nails, but employed the time while the other was driving them in, in taking breath. This clever diver found, on examination of the whole ship's bottom, many damaged places which could only be repaired by keel hawling.

We were on excellent terms with the inhabitants of the town, were daily visited by a crowd of *jerris*, who were only permitted to enter the Rurick at our pleasure, and who often brought presents without taking any thing in return. From the morning our ship was surrounded by the fair sex. Our sailors, who were for whole days on land, never had cause to complain of the natives, who always received them hospitably, even without mistrust, and left them alone with their wives. As there seemed to be no danger for us on land, I resolved to undertake a short excursion on foot to the stream, called by the English, Pearl River, which lies about half a day's journey to the west of Hana-rura. The pearl fishery is here forbidden, on pain of death, only the king takes advantage of it. Some pearls, out of this river, which Kareimoku gave me, were very beautiful. The permission for this journey was also given me by him, and for my better security he ordered two men to accompany me. In the mean time, Mr. Chamisso, who also obtained an attendant, made an excursion to the interior.

Early on the 8th I entered upon my journey, accompanied by Dr. Eschscholz, and the second mate. We called for Mr. Berkley at his house, where we found the two soldiers already waiting for us: they were active men, who, for the sake of convenience, had stripped themselves, only keeping, as a sign of their profession, silver mounted hunting-knives on their side. As soon as we got out from Hana-rura, we were obliged to cross a river of the same name, which rises on the hills, and bounds the west side of the town. Its breadth in many places is 15 fathoms, and its depth sufficient to float the boats that are sent there for the purpose of fetching water. It is the only place for watering, and would be very convenient for this purpose, were it not for the shallows that are formed at its mouth when it is low water. Great care must be taken to return with the boats at high water, otherwise they would have to lie there

for twelve hours. The water is of an excellent kind. The road then lay towards the west, through a beautifully cultivated valley, bordered in the north by a romantic wilderness, formed by wood-crowned heights; and on the south by the sea. The luxuriant taro-fields, which might be properly called taro-lakes, attracted my attention. Each of these consisted of about one hundred and sixty square feet, forms a regular square, and walled round with stones, like our basins. This field or tank contained two feet of water, in whose slimy bottom the taro was planted, as it only grows in moist places. Each had two sluices, one to receive, and the other to let out, the water into the next field, whence it was carried farther. The fields became gradually lower, and the same water, which was taken from a high spring or brook, was capable of watering a whole plantation. When the taro is planted, the water is lowered to half a foot, and the slip of a gathered plant stuck into the slime, where it immediately takes root, and is reaped after three months. The taro requires much room, having strong roots; it strikes forth long stalks and great leaves, which appear to swim on the water. In the spaces between the fields, which are between three and six feet broad, are pleasant shady walks, planted on both sides with sugar-cane or bananas. They also use the taro-fields as fish-ponds. In the same manner as they keep the river-fish here, they keep the fish in the sea, where they sometimes use the outer coral-reefs, and form from them to the shore a wall of coral-stones, thus making fish-preserves in the sea. Such a preserve requires much labour, but by no means so much art as the taro-fields, which serve for both purposes.

I have seen whole mountains covered with these fields, through which the water flowed gradually down, each sluice forming a cascade, and falling between sugar-canes and banana-trees into the next tank. Sugar plantations, taro-fields, and far-scattered plantations succeeded each other on our road, and we had inadvertently travelled five miles to the great village Mauna-Roa, situated in a pleasant valley, on the declivity of a hill. A boisterous rivulet, of the same name, falls here into the sea. Before the village, consisting of small neat thatched houses, lay two groves of cocoa and bread-fruit trees, through which we passed, in order to rest on a hill on the other side. Here we had a fine view of the harbour; I took out my instruments and made a few angles, at which the surrounding natives were much terrified, expecting, as Berkley said, a piece of enchantment. As these islanders seldom see an European, they looked at us with the greater curiosity; for the rest were a good-hearted set of people, who were very attentive to us, danced and

sang for joy at one little presents, and were very sorry when we left them. In several houses we heard a loud whining, and we learned that there were sick men in them, for whom their wives were weeping; it being the custom here, as soon as a man falls sick, for his wife and female relations to assemble round his bed to weep aloud for his situation, and tear their hair and faces, in the hope of producing him alleviation, and oftentimes a cure. At the death of a great *jerri*, the practice of burying his favourite with him is still kept up here. Berkley told me that the priests had already appointed Tammeamea's companions, and had not kept their fate a secret from them; because these victims were proud of being able to purchase this honour by the most terrible death. I myself once saw in Wahu, one of these victims, a man, who was always cheerful and happy. At the king's death they are led, bound, into the royal *murai*, and there killed, with great ceremony, by the priests. The river Mauna-roa, which, perhaps, is one of the broadest in the island, derives its name from the mountain Mauna-roa in Owhyhee, and means, literally translated, Mountain-high. Opposite the village is a convenient harbour, which, however, has a dangerous entrance, between reefs. After we had rested sufficiently, we continued our journey, left the shore, and crossed a promontory, extending far into the sea, where the road led us over a high mountain. Upon this elevation, the N.E. trade-wind diminished the oppressive heat, but sometimes blew so strong as to threaten to precipitate us down the steep precipice. We noticed here several *tapa*-plantations, a tree from whose bark the natives make their cloth. The manufacturing of this cloth is laborious, as the bark is beaten in the water till it acquires the necessary fineness. Only old women are employed in it, whilst the young ones are allowed to live in idleness, and spend their time in receiving the courtship of the men. Our road led us, after two hours' walk, into a charming valley, where we sat down under the shade of bread-fruit trees, on the bank of a salt-lake, whose owner, a *jerri* of rank, derives a considerable revenue from the bank of this lake being covered with the most beautiful salt. There was a kind of plungeon on it, which, although they cannot fly, are very difficult to shoot, because, at the moment the powder in the pan takes fire, they dive under water; nevertheless one of our islanders shot two for me. Mr. Berkley told me of a species of wild-duck, such as we have in Europe, which came there in January from the north, hatch their eggs, and return again in the beginning of spring. This account, which I had no reason to doubt, Mr. B. speaking from his own experience, made me suppose there must be some undiscovered land about the latitude of 45° , from

which these birds migrate, for we cannot suppose they make the long voyage from the Alioutskan Isles, in North-America, for the sake of enjoying a second summer here. After having refreshed ourselves a little, we passed over a high hill, and soon after came into a beautifully cultivated plain. At this distance from the capital Hana-rura, we were still greater objects of admiration to the inhabitants. A pretty little girl, six years old, jumped fearlessly about us, calling out to the others, who were older, though much more timid,—“Come here, and look at these strange white people: what fine *tapa* they have on! what shining things they carry! don't be stupid, come here!” I was delighted with the simplicity of the child, and hung a string of beads round her neck, a treasure which for a moment embarrassed her. The other children now came running to her, expressing their admiration by clapping their hands, but she admired herself in silence. The country is here indescribably beautiful; fields and villages are intermixed with cocoa and bread-fruit plantations. We now passed through a walk of trees, which I thought were aloe, being twice the height of a man, and bearing a round red fruit: my guide, who noticed the attention I paid to them, gathered some, and invited me to eat, without suspecting that I was a stranger to it; I bit one, and was severely punished for my curiosity, for, although I found the taste pleasant, my mouth was filled with small prickles, which gave me much pain the next morning. He lamented, when it was too late, that he had not told me to strip off the rind before I ate the fruit. Dr. Eschscholz, who now came up, told me they were not aloe, but *cactus*, or Indian fig-trees. We passed by Young and Holmes's extensive estates, which had been given them by the king, and were well cultivated. Although it was not near sun-set, the air was filled with a species of small bats, different from ours. At five o'clock we reached the place where we intended to stay that night, six miles straight from Hana-rura. It was a pretty village, belonging to Kareimoku, which took its name, Waujau, from a quick running rivulet that falls here into the sea. I directed my attendants to procure me a boat, to go the next morning to Pearl River, from which we were not far off; but their endeavours were in vain, the inhabitants having left the coast for some days, on a fishing expedition. There was only one boat, belonging to a jerri, in Hana-rura, which his people did not dare to lend us. The inhabitants of the village had been ordered by the governor to treat us well, therefore their first task was to prepare us a meal. A sucking-pig was baked on the ground, with taro and patatas; fresh fish was furnished from the taro-fields, and the wine we supplied ourselves. We also

gave some wine to the natives that surrounded us, which they relished much, as they then tasted it for the first time; our guests were very happy, and the evening was spent in singing and dancing. We found afterwards that we had been robbed of a knife, and my attendants, who were answerable for the conduct of the natives, tried in vain to discover the thief. These islanders seldom rob each other, and such a deed is always punished with public contempt, and often with death; but to steal any thing from an European, is reckoned a feat, of which they are very proud. They have a good idea of writing, and a letter seems to them a thing of great value, of which Berkley told me the following example: When he was in Owhyhee, he wrote to a friend in Wahu, and gave the letter to a *kanaka* (peasant) who was going there, and had promised to deliver it faithfully, but kept it as a great treasure. Some months afterwards, on the appearance of a European ship, the *kanaka* went on-board with his treasure to offer it to the captain at a high price; the latter, an old friend of Berkley's, fortunately knew his hand-writing, and bought the letter.—They prepared clean mats for our beds; but the liveliness of the gnats, which danced merrily over our faces, deprived us of sleep; and the next morning, being unable to get a boat, we were obliged to return without having seen Pearl River. There are several islands at the mouth of this river, and it is deep enough for the largest line-of-battle ships to anchor in a few fathoms from the bank, and broad enough for a hundred ships to ride conveniently. The entrance of Pearl River is the same as that to the harbour of Hana-rura; but the soundings between the reefs makes the passage more difficult. If this place was in the hands of Europeans, they would find means to make it one of the best harbours in the world. There are in the river sharks of an enormous size, and many instances of men having been swallowed by them whilst bathing. The natives have made an artificial bank of coral-stone near the shore, in which they keep a large shark; where, as I was informed, they sometimes throw adults, but frequently children, as a sacrifice. Upon our return, I perceived several half-putrified hogs hanging on trees, and I was told that this was done by the keepers, to convince their masters that they had died, and not been killed by them. In the evening, we safely arrived on-board.

On the 9th of December we were invited, by Kareimoku and Manuja, to a tournament. Young was surprised at this, and called it a particular favour, owing to my being the commander of the first man-of-war that appeared in Hana-rura. The islanders make a great distinction between men-of-war and merchantmen; with the latter they take all kinds of liberties, for

they detest the designs of European merchants to cheat them by every stratagem, by which they have lost their respect. Kareimoku had a good reason for refusing me the sight of a tournament, the natives, since they have been conquered by Tammeamea, being always ready to revolt. Only the nobility can participate in this game, which frequently turns to earnest, as it never terminates without there being some wounded or killed. Two years ago, when Tammeamea was on a visit here, a grand tournament was given, but he kept his soldiers with loaded muskets near him, who had also to quell the fury of the combatants. It was, therefore, but common prudence in Kareimoku when he requested my people would assist him. Previous notice is given of the day appointed for the tournament, to give time to the nobility to assemble from all parts, in order to display their courage and skill. They often muster about a hundred, who divide in equal numbers, and select a large place for their field of battle. Both parties take their position, and, the leaders of each stepping forward in the middle of the place, they aim at each other with darts, of which they have several in their hands, while each tries to avoid the weapons of his antagonist by dexterous turns of the body; and both are in constant motion, jumping from one place to another, stooping, and at the same instant throwing their darts. In the mean time the armies, waiting for the issue, stand motionless and silent, and the greatest spirit animates the party whose chief has proved victorious, as they consider it a good omen. After this prelude, the armies begin to move, troop advances against troop, in a moment they are all engaged, and the air is filled with blunted darts, for only such are used in these battles. Their real tactics consist in breaking the enemy's ranks, in attacking detached parties with vigour, and making prisoners; therefore a skilful leader never misses the opportunity of profiting by his opponent's faults, or enticing him to draw his greatest strength to one side, and thus giving up the weaker part to his superiority. If such a ruse succeeds, the victory is decided, and the party deceived are conquered. The same means are pursued in real battles, only with this difference, that the lances are sharp enough to transfix an enemy at the distance of ten paces; in real battles they also throw stones with slings, and make use of large clubs of heavy wood. Fire-arms being now introduced, the use of lances will probably soon be put aside. Tammeamea is generally considered as the most dexterous thrower; he often, to shew his ability in it, had fourteen lances thrown at him at once, either of which would have proved mortal, had he not escaped them all with great dexterity. The reputation of his invincible bravery made the conquest of the islands easy for him. When he appeared with his fleet before

Wahu, the king of the island fled to the hills, confident that the practice of killing the conquered would also be put in execution against him. "I must die," he said to his friends; "but it shall not be by the hands of my conqueror, he shall not have this triumph; I will sacrifice myself to the gods!" His body was afterwards found in a cavern at the top of a mountain.

We went on shore in the afternoon, and found above sixty *jerris* assembled for the tournament, but whose lances, made of the tops of the sugar-cane, were not very terrible. They divided, the game began, and, although the governor, who participated in it, did not let it come to a decided battle, yet several were very dangerously wounded. Nevertheless, the sight of such a contest was very amusing.

On the 13th, we took in our provisions, which were brought in such abundance, that our ship was not able to contain the whole. We received *taro*, bread-fruit, yams, *patatas*, cocoanuts, sugar-cane, and water-melons, besides seventeen hogs, some goats, fowls, and ducks. The hogs are far preferable in taste to the European, owing probably to their food, which consists of sugar-cane. Captain Adams, a very intelligent man, of great experience, dined with us. Among other things, he told me, that, a few years ago, the Americans of the United States discovered an island on the coast of California, which, on account of the multitude of sea-otters found upon it, was named Sea-Otter Island. Its southern point lies in $33^{\circ} 17'$ N. lat.; long., by moon distances, $240^{\circ} 50'$ E. of Greenwich; its circumference is between fifty and sixty miles, and, N.N.W. of this island, is said to be a dangerous reef. He farther observed, that, while in Europe, they endeavoured to destroy the slave-trade; the Americans try to promote it. For the purpose of buying slaves, the American ships repair to the N.W. coast of America, in lat. 45° , where the population is numerous. The savages perceiving that they are better paid for men than skins, turn to the horrible trade of kidnapping; and, being all of them supplied with fire-arms by the American traders, they find it easy to overpower the tribes in the interior, and to barter them with the ships for clothes. Strong examples of filial affection are frequently seen there, and even by those monsters, who try to profit by it: when, for instance, a son, hearing of his father being in slavery, comes to redeem him, they accept of his offer, the youth being of more value than the old man. When in this manner the ship is well loaded with slaves, they go to the north, as high as lat. 55° , where the natives purchase these unhappy people, for slavery, for sea-otter skins, which the Europeans sell dearly in China. They also are fond of abusing Tammeamea's confidence, and an American captain,

whom he had once entrusted with a vessel loaded with sandal, to carry to China, never returned. Some sailors are annually dismissed here for their bad conduct; and, as these only give bad examples, and do nothing but mischief, it is to be expected that, in time, they will completely abuse the good-nature of the natives. The missionaries do them still more harm, as they destroy whole nations, by the religious hatred which they kindle*. Adams possesses the full confidence of the king, and has been sent with the brig to Wahu to prevent any insurrection that might be attempted. At Owhyhee he fears nothing, being born there and destined for a king by the gods; but he dreads the inhabitants of Wahu, as they are subjugated.

The intelligence having been spread abroad that we intended to sail on the next day, we had a host of visitors, who brought us presents and wished us a safe voyage. The women swam the whole day round the vessel, bidding a tender farewell to their friends. Kareimoku requested me, through Mr. Berkley, to salute the fort on sailing, which I promised to do.

Early on the 14th of December, we demanded a pilot by firing a signal-gun; and he appeared immediately with some double canoes. The anchors were heaved, the *Rurick* towed out, and when Kareimoku came on-board, I saluted with seven shots, which pleased him so much that he embraced me repeatedly. The fort immediately returned my salute; and, when this was done, the royal brig, *Kahumanna*, saluted us, which we likewise returned.

At eight o'clock we were out of port; Kareimoku promised to pray to the gods, that the sun might be our guide by day, and the moon by night, and left us with his attendants, who, on pushing off, gave us three cheers. I soon lost sight of the island, and, being instructed to spend the winter-months in the

* Looking over Adams's Diary, I found the following notice: Brig *Forester*, March 24, 1815, on sea, upon the coast of California, latitude $32^{\circ} 45' N.$, longitude $233^{\circ} 3' E.$

"By a strong wind from W.N.W. and rain, we saw this morning, at six o'clock, at a short distance, a ship, the confused state of whose sails shewed that she wanted assistance. We immediately bent our course towards her, and recognized the distressed vessel to be a Japanese, which had lost both mast and helm. I was sent on-board by the captain, and only found in the vessel three dying Japanese, the captain, and two sailors. We took these unfortunate people on-board our brig, who, after four months' nursing, entirely recovered. We learned from these people, that they had sailed from the harbour of Osaco, (in Japan,) bound for another sea-port, but were overtaken by a storm, in which they lost the helm and mast. Till that day their ship had been drifting about, a mere butt for the winds and waves, during seventeen months, and, of thirty-five men, only three remained, all the others having died with hunger."—This note is remarkable as far as it proves that the current in these seas, north of the tropics, always keeps its direction from east to west.

investigation of the coral islands, for the purpose of making discoveries, I now steered in a direction that I might inspect the two small islands which were discovered by the frigate Cornwallis in 1807, on her sailing from the Sandwich Islands to Canton. I had reason to believe that their situation was not correctly given, as Capt. Krusenstern sailed in the year 1804, when they had not then been discovered, over the spot where they are marked upon the chart. The quantity of sea-birds which flew round the Nadeshda when there, made it probable that there was some land near. After I had found them I intended to take my course to the Kutusoff and Suwaroff Islands, the inhabitants of which are in possession of large boats, which seemed again to indicate the vicinity of other islands; these I hoped to discover, and then to sail for the Carolines.

Observations made during our stay on Wahu:—The middle of our daily mid-day observations gave for the latitude of our anchorage ----- $21^{\circ} 17' 57''$ N.

The middle from moon-distances, taken several days in succession, gave for the longitude of our anchorage ----- $157^{\circ} 52' 00''$ W.

Declension of the needle ----- $10^{\circ} 57' 00''$ E.

Dip of the needle ----- $43^{\circ} 93' 00''$

The middle of our observations in Wahu gave the time of high water in new and full moon, 2 hours, 55 minutes. The greatest difference in the water-stand amounted to six feet. The mean stand of the barometer was 29 inches, 80 lines. The mean stand of the thermometer was $75^{\circ}.0$ Fahrenheit. I have yet to notice the situation of an island, said to have been lately discovered: lat. $28^{\circ} 15' N.$, long. $172^{\circ} 30' W.$ I ought also to mention that, during our stay on Wahu, Manuja never left the ship without my permission, kept it from the first, and assisted us in purchasing any curiosity of the island; if I wanted any thing, he immediately jumped into the sea, and, arriving on shore, my demand was immediately complied with. To get me a stock of wood he set to work a hundred islanders, who had to fell it, drag it upon the shore, and cut it small,—a labour which, in this hot climate, would have fallen very hard upon my sailors. We made him several presents on our departure, and he felt himself peculiarly honoured in being allowed to be the bearer of the presents which I sent to Tammeamea.

From the Sandwich Islands to Radack.—Dec. 17th, lat. $19^{\circ} 44'$, long. $160^{\circ} 7'$. From Wahu to this place we either had calms or very slight winds from S.E., at the same time the strong current from S.W. carried us forty-five miles in three days to N.E.; but now the latter has taken its direction S.W.

On the evening of the 21st, we were in lat. $16^{\circ} 55'$, long. $169^{\circ} 16'$, consequently in the same parallel, and fifteen miles

from Cornwallis Islands. A sailor was constantly placed on the mast-head without seeing land, on the proximity of which we could not doubt, owing to the quantity of sea-birds which we saw. As soon as the sun had set, I turned the ship against the wind, tacking all night, with few sails.

On the 22d, at day-break, I again took my course west. At eight o'clock we were in lat. $16^{\circ} 6'$, long. $169^{\circ} 21'$, and consequently on the spot where the islands are laid, without seeing any thing of them. The many sea-birds still kept my hope alive, but, when at noon our longitude exceeded that of the islands, I was obliged to give them up, the frigate Cornwallis having probably made an error in laying down the longitude. Our observed latitude was $17^{\circ} 3'$, long. $170^{\circ} 1'$, and thus we had been driven by the current, in twenty-four hours, six miles N., and had sailed so close by the islands, if their latitude was correct, that we must have seen them, however low they might be. Besides I was confirmed, by the decreasing number of sea-birds, that I had passed these islands, and therefore gave up my search, steering S.W. to get in the latitude of the island St. Pedro, the longitude of which I wished to determine, if in fact it existed.

From the 26th to the 28th, we sailed 2° from east to west, upon the parallel of the island of St. Pedro, without descrying it; I therefore took a southern direction to reach parallel 10° , which I intended to follow to the west. Since we left the vicinity of the Cornwallis Islands, we saw daily sea-birds, and sometimes in such large flocks, that we judged there must necessarily be some undiscovered islands about here; but, with all our watchfulness, I was not fortunate enough to make any discovery. For the correctness of our longitude, I can vouch from our observations.

On the 30th, the lat. was $9^{\circ} 48'$, and the long. $187^{\circ} 9'$. I was anxious not to miss the Mulgrave Chain. The wind blew fresh from the north, and very high waves from N. by W. The current had taken us since yesterday twenty-seven miles to the west; and the birds were more numerous than usual.

On the 31st, lat. $9^{\circ} 49' 57''$, long. $188^{\circ} 33'$; the weather was gloomy, attended with rain; the wind shifting from N. to N.N.E. and N.N.W. I began to think I was near some land, but looked out for it in vain. At three o'clock P.M. we were just fifteen miles north of our course-line of the last year, and had now sailed a second time through the spot where the Mulgraves are said to be, without having seen them. I now steered north towards Kutusoff Island,

gave some wine to the natives that surrounded us, which they relished much, as they then tasted it for the first time; our guests were very happy, and the evening was spent in singing and dancing. We found afterwards that we had been robbed of a knife, and my attendants, who were answerable for the conduct of the natives, tried in vain to discover the thief. These islanders seldom rob each other, and such a deed is always punished with public contempt, and often with death; but to steal any thing from an European, is reckoned a feat, of which they are very proud. They have a good idea of writing, and a letter seems to them a thing of great value, of which Berkley told me the following example: When he was in Owhyhee, he wrote to a friend in Wahu, and gave the letter to a *kanaka* (peasant) who was going there, and had promised to deliver it faithfully, but kept it as a great treasure. Some months afterwards, on the appearance of a European ship, the *kanaka* went on-board with his treasure to offer it to the captain at a high price; the latter, an old friend of Berkley's, fortunately knew his hand-writing, and bought the letter.—They prepared clean mats for our beds; but the liveliness of the gnats, which danced merrily over our faces, deprived us of sleep; and the next morning, being unable to get a boat, we were obliged to return without having seen Pearl River. There are several islands at the mouth of this river, and it is deep enough for the largest line-of-battle ships to anchor in a few fathoms from the bank, and broad enough for a hundred ships to ride conveniently. The entrance of Pearl River is the same as that to the harbour of Hana-rura; but the soundings between the reefs makes the passage more difficult. If this place was in the hands of Europeans, they would find means to make it one of the best harbours in the world. There are in the river sharks of an enormous size, and many instances of men having been swallowed by them whilst bathing. The natives have made an artificial bank of coral-stone near the shore, in which they keep a large shark; where, as I was informed, they sometimes throw adults, but frequently children, as a sacrifice. Upon our return, I perceived several half-putrified hogs hanging on trees, and I was told that this was done by the keepers, to convince their masters that they had died, and not been killed by them. In the evening, we safely arrived on-board.

On the 9th of December we were invited, by Kareimoku and Manuja, to a tournament. Young was surprised at this, and called it a particular favour, owing to my being the commander of the first man-of-war that appeared in Hana-rura. The islanders make a great distinction between men-of-war and merchantmen; with the latter they take all kinds of liberties, for

they detest the designs of European merchants to cheat them by every stratagem, by which they have lost their respect. Kareimoku had a good reason for refusing me the sight of a tournament, the natives, since they have been conquered by Tammeamea, being always ready to revolt. Only the nobility can participate in this game, which frequently turns to earnest, as it never terminates without there being some wounded or killed. Two years ago, when Tammeamea was on a visit here, a grand tournament was given, but he kept his soldiers with loaded muskets near him, who had also to quell the fury of the combatants. It was, therefore, but common prudence in Kareimoku when he requested my people would assist him. Previous notice is given of the day appointed for the tournament, to give time to the nobility to assemble from all parts, in order to display their courage and skill. They often muster about a hundred, who divide in equal numbers, and select a large place for their field of battle. Both parties take their position, and, the leaders of each stepping forward in the middle of the place, they aim at each other with darts, of which they have several in their hands, while each tries to avoid the weapons of his antagonist by dexterous turns of the body; and both are in constant motion, jumping from one place to another, stooping, and at the same instant throwing their darts. In the mean time the armies, waiting for the issue, stand motionless and silent, and the greatest spirit animates the party whose chief has proved victorious, as they consider it a good omen. After this prelude, the armies begin to move, troop advances against troop, in a moment they are all engaged, and the air is filled with blunted darts, for only such are used in these battles. Their real tactics consist in breaking the enemy's ranks, in attacking detached parties with vigour, and making prisoners; therefore a skilful leader never misses the opportunity of profiting by his opponent's faults, or enticing him to draw his greatest strength to one side, and thus giving up the weaker part to his superiority. If such a ruse succeeds, the victory is decided, and the party deceived are conquered. The same means are pursued in real battles, only with this difference, that the lances are sharp enough to transfix an enemy at the distance of ten paces; in real battles they also throw stones with slings, and make use of large clubs of heavy wood. Fire-arms being now introduced, the use of lances will probably soon be put aside. Tammeamea is generally considered as the most dexterous thrower; he often, to shew his ability in it, had fourteen lances thrown at him at once, either of which would have proved mortal, had he not escaped them all with great dexterity. The reputation of his invincible bravery made the conquest of the islands easy for him. When he appeared with his fleet before

Wahu, the king of the island fled to the hills, confident that the practice of killing the conquered would also be put in execution against him. "I must die," he said to his friends; "but it shall not be by the hands of my conqueror, he shall not have this triumph; I will sacrifice myself to the gods!" His body was afterwards found in a cavern at the top of a mountain.

We went on shore in the afternoon, and found above sixty *jerris* assembled for the tournament, but whose lances, made of the tops of the sugar-cane, were not very terrible. They divided, the game began, and, although the governor, who participated in it, did not let it come to a decided battle, yet several were very dangerously wounded. Nevertheless, the sight of such a contest was very amusing.

On the 13th, we took in our provisions, which were brought in such abundance, that our ship was not able to contain the whole. We received *taro*, bread-fruit, yams, *patatas*, cocoanuts, sugar-cane, and water-melons, besides seventeen hogs, some goats, fowls, and ducks. The hogs are far preferable in taste to the European, owing probably to their food, which consists of sugar-cane. Captain Adams, a very intelligent man, of great experience, dined with us. Among other things, he told me, that, a few years ago, the Americans of the United States discovered an island on the coast of California, which, on account of the multitude of sea-otters found upon it, was named Sea-Otter Island. Its southern point lies in $33^{\circ} 17'$ N. lat.; long., by moon distances, $240^{\circ} 50'$ E. of Greenwich; its circumference is between fifty and sixty miles, and, N.N.W. of this island, is said to be a dangerous reef. He farther observed, that, while in Europe, they endeavoured to destroy the slave-trade; the Americans try to promote it. For the purpose of buying slaves, the American ships repair to the N.W. coast of America, in lat. 45° , where the population is numerous. The savages perceiving that they are better paid for men than skins, turn to the horrible trade of kidnapping; and, being all of them supplied with fire-arms by the American traders, they find it easy to overpower the tribes in the interior, and to barter them with the ships for clothes. Strong examples of filial affection are frequently seen there, and even by those monsters, who try to profit by it: when, for instance, a son, hearing of his father being in slavery, comes to redeem him, they accept of his offer, the youth being of more value than the old man. When in this manner the ship is well loaded with slaves, they go to the north, as high as lat. 55° , where the natives purchase these unhappy people, for slavery, for sea-otter skins, which the Europeans sell dearly in China. They also are fond of abusing Tammeamea's confidence, and an American captain,

whom he had once entrusted with a vessel loaded with sandal, to carry to China, never returned. Some sailors are annually dismissed here for their bad conduct; and, as these only give bad examples, and do nothing but mischief, it is to be expected that, in time, they will completely abuse the good-nature of the natives. The missionaries do them still more harm, as they destroy whole nations, by the religious hatred which they kindle*. Adams possesses the full confidence of the king, and has been sent with the brig to Wahu to prevent any insurrection that might be attempted. At Owhyhee he fears nothing, being born there and destined for a king by the gods; but he dreads the inhabitants of Wahu, as they are subjugated.

The intelligence having been spread abroad that we intended to sail on the next day, we had a host of visitors, who brought us presents and wished us a safe voyage. The women swam the whole day round the vessel, bidding a tender farewell to their friends. Kareimoku requested me, through Mr. Berkley, to salute the fort on sailing, which I promised to do.

Early on the 14th of December, we demanded a pilot by firing a signal-gun; and he appeared immediately with some double canoes. The anchors were heaved, the *Rurick* towed out, and when Kareimoku came on-board, I saluted with seven shots, which pleased him so much that he embraced me repeatedly. The fort immediately returned my salute; and, when this was done, the royal brig, *Kahumanna*, saluted us, which we likewise returned.

At eight o'clock we were out of port; Kareimoku promised to pray to the gods, that the sun might be our guide by day, and the moon by night, and left us with his attendants, who, on pushing off, gave us three cheers. I soon lost sight of the island, and, being instructed to spend the winter-months in the

* Looking over Adams's Diary, I found the following notice: *Big Forester*, March 24, 1815, on sea, upon the coast of California, latitude $32^{\circ} 45' N.$, longitude $233^{\circ} 3' E.$

"By a strong wind from W.N.W. and rain, we saw this morning, at six o'clock, at a short distance, a ship, the confused state of whose sails shewed that she wanted assistance. We immediately bent our course towards her, and recognized the distressed vessel to be a Japanese, which had lost both mast and helm. I was sent on-board by the captain, and only found in the vessel three dying Japanese, the captain, and two sailors. We took these unfortunate people on-board our brig, who, after four months' nursing, entirely recovered. We learned from these people, that they had sailed from the harbour of Osaco, (in Japan,) bound for another sea-port, but were overtaken by a storm, in which they lost the helm and mast. Till that day their ship had been drifting about, a mere butt for the winds and waves, during seventeen months, and, of thirty-five men, only three remained, all the others having died with hunger."—This note is remarkable as far as it proves that the current in these seas, north of the tropics, always keeps its direction from east to west.

investigation of the coral islands, for the purpose of making discoveries, I now steered in a direction that I might inspect the two small islands which were discovered by the frigate Cornwallis in 1807, on her sailing from the Sandwich Islands to Canton. I had reason to believe that their situation was not correctly given, as Capt. Krusenstern sailed in the year 1804, when they had not then been discovered, over the spot where they are marked upon the chart. The quantity of sea-birds which flew round the Nadesbda when there, made it probable that there was some land near. After I had found them I intended to take my course to the Kutusoff and Suwaroff Islands, the inhabitants of which are in possession of large boats, which seemed again to indicate the vicinity of other islands; these I hoped to discover, and then to sail for the Carolines.

Observations made during our stay on Wahu:—The middle of our daily mid-day observations gave for the latitude of our anchorage ----- 21° 17' 57" N.

The middle from moon-distances, taken several days in succession, gave for the longitude of our anchorage ----- 157 52 00 W.

Declension of the needle ----- 10 57 00 E.

Dip of the needle ----- 43 93 00 "

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KOTZEBUE'S

VOYAGE ROUND THE WORLD.

JANUARY 1st, 1817; lat. $10^{\circ} 10'$, long. $189^{\circ} 54'$.—At four o'clock P.M. we descried land in N.N.W. It was a low woody island, the length of which from north to south was three miles, and the breadth three-quarters of a mile. Not knowing of any island about this neighbourhood, I made sure of its being a new discovery, and named it *New-year's Island*, having first seen it on New-year's Day. On account of the low wind, we could not undertake any farther examination this day; immense numbers of fish played around us; but I saw less birds, from which I concluded that the island was inhabited.

On the 2d, there being a very long reef on the northern part of the island, extending to the N., I steered my course to the S. where no surf was to be seen. When we had approached the S. point within about two miles, we were surprised by seven canoes, each rowed by six or eight men, making straight towards us. Their construction was the same as of those we had seen in Kutusoff Islands, only being much smaller, and put together with very small pieces of board; which indicated a want of timber. They let it in the water very quickly; and, as the natives never leave the island but in perfect calm, the boats have neither masts nor sails. They approached us with much exertion, till within 100 fathoms, where they kept moving their oars but negligently, looking towards the ship with great astonishment. Their behaviour, at the same time, was rational; we neither noticed the cries, nor the ridiculous motions usually made by savages, upon their first meeting with Europeans; their attention was engaged by the ship, which they surveyed from the top of the mast to the water. These savages appeared tall and slender; their dark complexion, and their being tattooed every where, except in their faces, made them look quite black at a distance. A high forehead, curved nose, and lively hazel eyes, distinguish the natives of New-year's Island from those of the other South-sea Islands: their long black hair is rubbed with cocoa-nut oil, tied together on the top of the head, and

adorned with flowers and shells; and round the neck they wear ornaments of red shells. Their dresses were of various kinds; some had two fine mats wound round their body, others wore a plaited belt, from which grass-fringe hung down to their feet, and entirely covered them. We particularly noticed the ear-holes being more than three inches in diameter, in which they wore green leaves twisted together. In each boat was a chief, who did not row, but gave orders. He always sat on the side of the boat, cross-legged, upon an elevated part, where he looked very stately. One of these chiefs, a tall, well-made man, with a thick beard, seemed to be more tattooed than the rest; he held in his hand a large shell, from which he frequently blew forth very loud and hollow sounds,—for what purpose I could not learn; yet I remember to have previously seen these shells on the Marquesas, where they are used in war. On our invitation, they came nearer, but would not come on-board. The trade began to be very brisk: for small pieces of old iron hoops, they willingly gave the most curious articles of their manufactures, and the chief even parted with his beautiful shell-horn for a piece of old iron, which, after having looked at with delight, he concealed in his girdle. They dealt very honestly, and I thought them cheerful and even jocular. Their arms, only consisting of lances, carelessly made, proved that they were no warriors; but their other productions were neater than I have often seen them, and they were remarkably clean in their persons. The island did not seem to be very fertile in provisions, at least these natives had nothing with them except a few pandanus-grains, which they were incessantly chewing. As far as we could judge from the hasty glance we gave at the inhabitants of the Kutusoff-islands, they seem to be of the same origin.

We found the latitude in the middle of the island $10^{\circ} 8' 27''$, N., and the long. $189^{\circ} 4' 46''$ W. Availing ourselves of the calm, I dispatched Lieut. Schischmareff and the scientific gentlemen, in two well-armed boats, to effect, if possible, a landing. They returned, after a few hours, without having gained their object, and the lieutenant gave me the following report:

“When the islanders in the boats, near the ship, saw that we were rowing towards their island, they immediately followed us: we approached a spot, which we thought would be convenient for landing; the surf was trifling, and, if the natives had not prevented us, we should have gone on shore. They had collected there in large numbers, armed with lances, with notched points fastened to them; others surrounded us with their boats, which induced me to open the trade on the water,

where we then were; they jumped into the sea by crowds, swam to us, and brought us mats, necklaces of shells, cocoanuts, pandanus-fruit, and fresh water in cocoa-shells; they also offered to exchange their lances with two small bows made of wood, and of which they had formed a weapon, by means of shark's-teeth; they were one foot and a half long, and two inches broad. The number of islanders swimming was still increasing, and the boats formed a complete circle; but, without our suffering one of them to come too near, they became very bold and impudent, and offered us even cocoa-shells with sea-water; an old man would get absolutely into the boat where I was; I tapped his hands, and threatened him with my sword, but he would not desist, till I gave him a blow on his head with my fist, when he swam back to shore. Another old man was about to seize upon the rudder of the baydare, which so enraged the helms-man, that he would have fired upon him, had he not been prevented by the gentlemen who were with him; in order to prevent any unpleasant consequences, I preferred returning on-board. The island is surrounded by red-coral reefs; on the spot where we stood, the water is not above one foot deep. Near the reef itself it is five fathoms, and farther out, about fifteen feet from shore, we could not find the bottom: it was upon this reef the natives had assembled, which made it impossible to land without danger. We were surrounded by about eighteen boats, none of which held more than six men, several of them only one or two, and all without masts. The number of natives, in the boats and upon shore, amounted to about 200; we saw but few women, and no children among them. The island is well wooded, and we saw several pandanus-trees, but only few cocoa-trees, and those very low. The natives were all tattooed the same as those who came to the ship; they had also twisted leaves in their ears."

I now changed my plan about sailing to the Kutusoff group, and steered, as I expected, to other islands near the New-year's Island, S.W., to get again in the parallel 10° , and then to take a westerly course. This parallel, in longitude 189° , is so full of islands in Arrowsmith's chart, that I could not miss them, if only the tenth part of them existed. At sun-set we lost sight of New-year's Island, although we were but a few miles of it, and tacked during the night, to keep the ship on one spot.

On the 23d of January we saw several snipes, but no land; having reached lat. $10^{\circ} 2'$, long. $189^{\circ} 40'$, I thought it useless to go farther W., convinced that the islands marked on Arrowsmith's chart were not here; and therefore turned the ship S.E.

to try my fortune in this direction. At seven o'clock P.M. we were in lat. $9^{\circ} 37'$, seven miles W. of the course-line of last year, without seeing land from the mast-head. We shot a pelican which came close to the ship. In these parts the horizon is seldom clear, appearing always to be covered by a fog.

Jan. 4th; lat. $9^{\circ} 43'$, long. $189^{\circ} 53'$.—My intention was to have pursued our present direction only this day, and to have turned our course to S.E. It was almost noon when land was announced. At one o'clock we saw from the fore-castle, at a distance of six miles, a string of small wooded islands, the intervals of which were filled with coral-reefs, extending as far as the eye could reach: I already counted more than twenty; and, pursuing the chain within a distance of two miles, saw the surf breaking itself with fury upon the coral-reefs, and the water beyond the chain as smooth as a mirror. At four o'clock P.M. we reached the W. point of the islands; the group here terminated, but a long reef, projecting just above the water, stretched to the S.W., and then took its direction to S.E. farther than the eye could reach. As soon as we had doubled the W. point, we were under the wind, in perfectly calm water, and approached the reefs within a distance of 200 fathoms, in the hope of finding a passage between them. I knew, from experience, that the depth near coral-reefs is always very considerable, and I was therefore bold enough to overlook the danger; besides, this is the only means of examining them, since at a distance of half a mile the passage would no longer be visible. *D'Entrecasteaux*, who, in surveying the coast of New-Caledonia, expected to find a passage between the reefs, only approached within three miles of them, which prevented him discovering what he sought. This navigation certainly requires the greatest precaution; there must be always a man on the mast-head, a second on the bow-sprit, a third on the ship's-head, and the pilot, provided with a good telescope, in the scuttle, in order to warn against danger; and Capt. Flinders justly observes of these places, "that a man who has weak nerves should leave such an investigation alone." Mine I felt strong enough to face such a danger, although any sudden shifting wind would have been fatal to us, by throwing us against the rocks. But we were all upon the watch, and the crew ready to lay the vessel round at a moment's notice. Under such precautions we rapidly continued our course, without perceiving the least opening or curve in the reef. The chain of islands lay on the north of us, at a distance of six miles, and our access to them cut off by the reef, two fathoms wide; beyond it the water was calm, and the depth seemed considerable. As far as we could see, the reef ran to S.E., and at the end of it we descried a small island, higher than the rest, which probably

was connected with it. At last we found two passages, through which, although they were rather narrow, we hoped to get with our ship. This discovery, not only of consequence to us but to every navigator, we should not have made, had we not approached the reef within a musket-shot. It was too late to proceed, and we left the dangerous spot for the night.

Jan. 5th; lat. $9^{\circ} 27' 55''$ N., long. $190^{\circ} 11' 30''$.—The current had driven us so far N.W. during the night, that we saw no land till seven o'clock, and at nine we were again upon the spot which we had left the day before. I now dispatched the lieutenant to examine the northernmost of the passages, which he found very deep, but thought it impossible to penetrate through it with the ship, the navigable track being seldom above fifty fathoms wide, constantly winding, and the entrance besides so situated that the trade-wind always blew out of it. We now sailed for the second passage, which we reached at noon; and, while Schischmareff examined it with the boat, we took some observations, by which we clearly ascertained the situation of this passage. Schischmareff having happily got through the reef, informed us, by signals, that he had found no bottom at the entrance, but on the spot where he lay it was 100 fathoms, and on the other side of the reef 26 fathoms depth, over a coral ground. The narrowest part of the passage he found 123 fathoms. These islands are very interesting, from their construction, being entirely formed by marine vegetables: and I made up my mind to attempt much more, before I gave up my plan of penetrating between this chain. The night approaching and the wind becoming brisk, we recalled the boat, and fell upon the following expedient, to make sure of keeping for the night on this dangerous, yet important, spot, which I was afraid of losing. Warp-anchors were fixed to the reef; we then brought the *Rurick* within fifty fathoms of it, took in all sails, and fastened her to those anchors by means of a cable 175 fathoms long. As long as the trade-wind kept blowing from N.E., there was no danger; but, had it shifted to S.E., (an event which is very common here,) we should have been irretrievably lost. The reefs principally consist of grey corals, there being very few red among them; at low water the rocks are visible two feet above it, which was the case when we fixed our warp-anchors, but soon every thing was covered with water. At a short distance from it we had forty fathoms' depth, but which, a little farther, increased so much that we could find no bottom. On the east side of the strait a small sandy island has been formed, which will in time undoubtedly extend, be covered with plants, and become like the rest of the islands. We were surrounded by a great number of sharks, which gree-

dily swallowed every thing that was thrown over-board; they seemed chiefly to keep themselves near the passage, on account of the many fish that probably swim about there with the regular current. Flying-fish also frequently skimmed the air, probably to escape from their voracious enemies. The boat, which examined the strait, was attacked by sharks, which could not be repelled by blows with the oars; we caught two of them, which was very easily effected, as they swallowed the hook the moment it was thrown out. At midnight we perceived the strength of the current from the strait was one knot.

On the 6th, at four o'clock in the morning, it being still very dark, the wind shifted to east, and soon afterwards to E. by S., which brought our ship within a short distance of the reef; the depth here was twenty-three fathoms. As it would have required but one blast from the south to break our ship against the rocks, I was compelled to retire from my post, even leaving my anchors behind, which now lay too deep under water. The cable was loosed, the sails hoisted, and we got safe off the reef, but kept tacking in its vicinity. As soon as the sun appeared above the horizon, we made for the channel, finding the wind just blowing from E. to E. by S.; we profited by the moment and entered it with full sails. At nine o'clock, 40 min. we were in the middle of the channel; a dead silence reigned on-board, which was only broken by the roaring surf from both sides, and every one was at his post. At last the pilot from the scuttle called out, that there was no more danger, as the water assumed a dark colour. The *Rurick* now sailed upon perfectly smooth water; we had the surf behind us, and congratulated each other upon the success of the adventure. The current, which in the strait ran two knots, had quickly carried us from every danger, the whole transit lasting only 15'. The passage was named *Rurick Strait*. We took a straight course, on the 4th, from W. to E., (from which direction I shall always reckon my course;) we saw several columns of smoke, and, by the aid of the glass, also some of the inhabitants. But, notwithstanding our anxiety for getting in contact with the natives of these islands, we sailed but slowly, frequently throwing out the plummet, for fear of getting upon shallows. Immediately after leaving *Rurick Strait*, we found the depth over a ground of live corals, from 26 to 27 fathoms; on coming near the island, it gradually decreased, and, at a distance of two miles, we found 18 fathoms. The bottom, which in some places consisted of fine coral-sand, induced us to hope that we should find a good anchorage near the island; my lieutenant, who preceded us in a boat, soon signified to us that he had found ten fathoms of depth over fine coral-sand, and we immediately

steered our course for it. In the north we had now, at a distance of 200 fathoms, the reef which united the third island with the fourth. At the same distance we were protected in the east from a coral-reef, visible at low water; and we lay in a perfect calm, which, in this place, even the most violent wind did not ruffle. Our prospect was confined in the east by the chain of islands; in the west we saw the reef, round the outside of which we had sailed; in the south we had a clear horizon, as the reef through which we had passed was not even discernible from the mast-head, only the small low island I mentioned before being visible. The geographical situation of this group was yet enveloped in doubt, yet it was natural to suppose that there was some connexion in the north, since no high waves came from that direction. The water on the spot where we lay was so clear, that the bottom could be seen from 10 and 12 fathoms; at the same time we had the most beautiful weather. The naturalists made an excursion upon the third island, from which they returned in the evening with plants and shells. The islands 1, 2, and 3, were found uninhabited, although traces of people were every where visible. At 3 o'clock, P.M. we saw a boat under sail, coming from the east, which, after having unloaded something on the fourth island, made straight towards us. By the large sail and some clever manœuvres, we perceived that it completely resembled those on the Kutusoff Islands. It approached the Rurick within 50 fathoms, the sail was taken in, and an old man at the helm, probably the commander, showed us some fruit, at the same time speaking aloud, and frequently repeating the word, *Aidara*, which we remembered to have often heard at the New-year's Island. We failed in getting them nearer the ship, as they always knew how to avoid us by stratagem; they looked with great curiosity at the ship, but paid no regard to us. I sent out a boat to meet them, but, as soon as they saw it, they made off; being overtaken by it at last, they were much terrified, and threw bread-fruit, cocoa-nuts, and pandanus into it; but some pieces of iron that were offered to them diminished their fear, and they accepted them willingly; after much conversation, without understanding each other, they made for the fourth island, whither they invited us by signs. This first interview showed that we had to deal with good-natured people. Their manner of tattooing and dressing was the same as in the New-year's Island, and they are most probably of the same race.

Early on the 7th, I sent out two boats for the anchor we had left on the reef, and which they brought back in the evening. Our new acquaintances contrived to get near us; their heads were adorned with flower garlands, and they were in their best

dresses. I sent Messrs. Schischmareff and Chamisso to the fourth island, in order to court the friendship of these people; but, as soon as the old man saw our boat taking that course, he followed, loudly shouting, and we saw the two boats land.

Lieutenant Schischmareff gave me the following account of this excursion:—

“I steered towards the spot which seemed to me convenient for landing, whither the islanders followed me in their boat; on my approach, I saw some people, who had been walking near their huts, flying to the wood on seeing us. I went on shore near one of the huts, and finding it empty I went no farther, but waited for the boat of the natives, who, not being able to land where I had, went a quarter of a mile farther down. I left my people in our boat, and walked up to them alone; six men came out of the canoe, some of the fugitives met them, but soon went away with three of those that had just landed; the three others came to meet me. I could not understand what induced them to go to the wood; whether it was timidity or the plan of an attack; which latter, however, I did not fear, having a brace of pistols with me, and my armed people being at hand; yet, when they came near, I saw that they were unarmed, and were afraid of me. They stopped about twenty paces from me; an old man held something white in his hands, lying upon palm-leaves, and which he seemed to have destined for me, but did not venture to come nearer; however, he broke off a leafy branch from a tree, probably a sign of peace; I did the same, and went up to him; at first the man timidly retired, but at last he handed his present to me, constantly repeating the word *aidara*. I received it, and, although I did not understand the meaning of it, I also repeated *aidara*. I afterwards learnt that it meant friend. Hereupon the woman who was with him, and probably his wife, presented me a pandanus branch; and the third, a young man of twenty, who had no present prepared for me, handed me his own necklace, which I put round my hat; the old man then took a wreath of flowers from his head, which I put upon mine: this, it seems, encouraged them, and we went together to the huts, where our naturalist joined us, and was also presented with a necklace and flowers. I returned their presents by giving them iron, which afforded them much pleasure; the others from the forest came also, and were likewise presented with iron. We were now surrounded by thirteen islanders, who proved themselves friendly, but somewhat timid; they were all unarmed. The party consisted of a man of about forty years old, two elderly women and one young one, three young men aged twenty, and children from nine to fifteen years old; one,

however, was only three years old, and still carried in arms; the old man had a short black beard, and black hair, and wore a small mat round his body; the others had no beard; the young men likewise wore mats, but the children were quite naked. The women were wrapt in mats, from the waist downwards; they were all of rather a dark colour, but thin, of a tender make, and looked clean. The men were painted with several squares of a dark-blue colour, as on New-year's Island: the women had but few of these marks upon their necks and bosoms; they all wore in their ear-holes twisted leaves; their countenances bore an expression of kindness; and they all formed one family, of which the old man was the chief. Our naturalist gave him some water-melon seeds, and taught him how to sow them. I enquired where they obtained the water which I found they had in cocoa-nut shells; when they understood me, they took me to a place, almost in the centre of the island, where the rain-water, from the more elevated parts, was collected in a trench. We then went to the shore, where we found some large trees had been driven here by the sea, and which resembled oaks. On our return near the cottages, we were invited to that belonging to the chief, consisting of a roof, supported by four poles, under which two mats had been spread, whereon we sat down. A woman prepared a *pandanus*-fruit, by beating it soft with a stone, then the man squeezed the juice into a shell; and, although all this was performed with the hands, it was done cleanly; and, when the chief was going to hand me the juice, and something had fallen in, he took it out, not with his fingers, but with a splinter of wood: during this time our sailor was treated in another hut. We gave the chief two knives, some pieces of iron, and fish-hooks, and invited him to come on-board. Thus we had formed a new alliance, and the word *aidara* was frequently interchanged between us. Our new friends accompanied us to the shore, and assisted us in getting our boat back into the water."

The few people whom Schischmareff found upon the island gives me an idea that they have their settlement in another part. They brought me a white lump, resembling loose chalk; I afterwards understood that it was prepared from a plant, called by the natives, *Mogomuk*, the root of which has the appearance of a small potato, and is, after being dried in the sun, crushed and made into a fine flour; that which is prepared into lumps may be kept a long time, without spoiling. When it is used, some part is broken off the lump, stirred up in a cocoa-nut shell with water, and boiled till it rises into a thick pap; it is something like our potatoes in taste; the plant grows wild.

On the 8th, we saw the boat of our friends sailing eastward,

probably to carry the account of our arrival among their more distant friends. When I went in the afternoon to the island, I found it completely deserted. We had brought six goats, a cock and hen, and several seeds with us, which we intended to have left on the island. We landed opposite the chief's cottage, and then set our animals at liberty; the goats immediately fell to upon the fine grass that grew round the hut; the cock with his hen flew upon the roof of the same, of which the former took possession by loud crowing. I planted some yams near the cottages, and Mr. Chamisso sowed the seeds in different parts, which he thought best for their growth. After some slight examination, we found, that this island, like all the others, consists of the remains of corals. This production grows from the bottom of the sea, and dies as soon as it has reached the surface; from it, is formed, by the permanent depositions of the sea, a grey calcareous stone, which seems to be the base of all the islands, and gradually forms a surface of sand, which in time increases in size; by the seeds* which the sea throws upon it, it is covered with vegetation, and at last, by the falling of the leaves, forms a black, fruitful mould. In some places the island was covered with impenetrable forests, in which the pandanus-tree, which yields a lovely, aromatic smell, was the most frequent; the bread-fruit tree is often seen here, and arrives to an enormous size and height; but the fruit seemed to be out of season. Cocoa-trees are scarce, yet we found some young ones of this kind, which had been but recently planted. Of quadrupeds, we only saw rats of a middling size, and lizards; the former are so bold, that they ran round us without the least fear; we saw no land-birds. In a square trench, in a low part of the island, we found clear water of an excellent taste. When we left this spot, to which I had given the name of Goat Island, we saw the goats and the fowls in the places we had left them.

On the 9th, in the afternoon, having sent on shore for water, I was informed that people had been seen there, who had probably arrived during the night. The mate told me that he had been well received by them. He had seen neither women or children, but a very old man, whom he could not re-

* This seed, being enveloped in a strong husk, is of such a condition as to be driven upon the sea for years, without spoiling. It probably comes from the American coast, whence, driven by rivers into the sea, it is finally carried to these islands by the strong current, which, between the tropics, commonly runs from E. to W. To be convinced of the possibility of this, the reader will recollect the Japanese ship, which had been carried by the current, within seventeen months from the coast of Japan to that of California.

cognise as having seen before. The goats had taken up their abode in a small hut, close to the chief habitation. The natives only cast shy looks upon these animals, and, at every one of their motions, were ready to run away, and they all fled in consternation when an attempt was made to bring one near them. The mate endeavoured to explain to them, that the goats were a present from us, intended for their food, which they seemed at last to understand, as they often repeated the word *aidara*. The fowls they knew; they called the cock, *Kahu*; and the hen, *Lia-Lia-Kahu*. A piece of cloth which we had left yesterday in the hut was still in the same place; and they were very much pleased, when the mate divided it among them. We thought this a mark of great honesty, but found, on a closer acquaintance with them, that they were arrant thieves, and only acted so conscientiously through fear.

Jan. 10th.—Having resolved to follow the chain of islands to the east, I dispatched Lieut. Schischmareff, early in the morning, in a boat, in order to find out an anchorage that we might be able to reach in one day; for, the wind here generally blowing from the east, and very fresh during the day, great progress cannot be made in that direction. The lieutenant was compelled to return to the ship in the afternoon, owing to a storm. He had gone seven miles, without having found a safe anchorage; although the ground and the depth in many places were qualified for it, yet there was no spot protected from the easterly winds, which toss the ship very much, and expose the cables to the danger of being cut by the coral-rocks. He observed in his progress several coral-banks, which lay to the S. of the chain of islands: close by the reefs, connecting the islands, the bottom consists of fine sand, but of live coral, opposite the island. On passing Goat Island, he saw several people on the connecting reefs, profiting by the low water in passing from one island to another; all the other islands appeared uninhabited.

On the 11th, as there were difficulties and dangers in advancing with the boat, I resolved to make the attempt with the ship. This day being unfavourable for the undertaking, I remained at anchor. On going to Goat Island in the afternoon, I found one of the goats dead, probably owing to indigestion, occasioned by a change of food. Our anchorage I named Christmas-harbour, because (according to the old style) we spent this festival there.

On the 12th, the wind blew violently from the N.E., and did not appear favourable to my undertaking; nevertheless we were under sail at six o'clock, hoping, that, when the sun rose, we should have fine weather, as was often the case here. We tacked at first to some purpose, but, the wind becoming

stronger, and the atmosphere so dark, the land was concealed from us. The top-sails were obliged to be reefed, by which the braces were often snapped, and we lost much time. We should have borne these inconveniences, but, not a single ray of the sun beamed on the objects around us; the watch was at the mast-head, and the mate in the scuttle, and we were surrounded by shallows and coral-reefs! In an instant the ship was turned to the wind, and it was high time, for we were just about sailing over a bank, which the gloomy weather had concealed from our view: we had scarcely time to be aware of our dangerous situation, before the sun was again hidden by clouds, and we were in danger again. Most of these banks are just under the surface of the water, extending only a small distance, and rise perpendicular from the ground. In clear weather they are seen at a considerable distance, as every bank appears like a dark spot on the water; but, if it be dull, the whole surface is dark, and the danger is only observed when it is almost too late to avoid it. This was the case with us, for the ship was no sooner on a fresh course, than we discovered another bank; we tacked and re-tacked, and at last, rain coming on, we were enveloped in darkness, and the frequent blasts of wind snapped our braces again. I would not proceed farther, my only wish being to bring the ship safe back into harbour. After innumerable tackings between coral-banks and shallows, we succeeded in gaining our anchorage again, but in a very exhausted state, having been in a most painful situation for three hours. In this unsuccessful expedition, we advanced seven miles to the east, in which direction we saw land from the mast-head, and therefore supposed that we were in a circle of islands. The unfavourable weather continued on the 13th, one squall following another, some of which were so violent that I was afraid of my cable, but after a heavy fall of rain it became calmer. In the afternoon, I despatched a boat to Goat Island to procure water, which was done daily, in order to preserve the stock we had brought from the Sandwich Islands; rain-water not being fit to preserve, as it becomes fetid after six days. In the mean time, we saw a boat coming from the east, and landing on Goat Island, and the mate informed me he had seen people there, who had received him kindly, where even some women endeavoured to amuse him with dancing and singing.

On the morning of the 14th, we again saw a boat coming from the east, and landing on Goat Island; it was the second of the kind, and I now hoped for a certainty that the real abode of these savages was in the eastern part of the group. The mate whom I had sent to the island informed me, on his re-

turn, that he had found strange islanders, who had treated him with boiled fish and baked bread-fruit, and that the women also amused him with dancing and singing. The goats were still an object of terror to the natives, and to-day they were particularly frightened by one of them: when the mate went to the huts, the chief presented him with a nosegay, as a sign of peace; at the same time one of the goats ran towards his travelling companion, and in passing by tore the nosegay from the hand of the islander, so quick, as to strike him with his horns; accordingly, he and all his companions ran away, and the mate had great difficulty in bringing them back to their huts, after having driven the goats among the bushes.

The weather being very favourable to-day for our enterprize, I left the ship at two o'clock in the afternoon, with two armed boats, accompanied by the scientific gentlemen and Lieut. Schischmareff. There were in all nineteen men, and we had provided ourselves with provisions for five days. At three o'clock P.M. we reached the fifth island, where I resolved to pass the night. We happened to land when the water was at the highest, and could therefore conveniently get the boats into a channel which runs between the fifth and sixth island. This island is only half a mile in circumference. The interior of it consists of large dead masses of coral, covered with only two inches of mould, while that on Goat Island in some places is as much as three feet deep. This difference proves that the small island has been formed much later; and on the whole chain we afterwards found the observation confirmed, that the small islands, in comparison with the larger, are much more barren, the vegetation being very poor, as they are yet in want of mould, which is only formed, in the course of time, by the falling and rotting of the leaves. The place on which I stood filled me with awe, and I adored the omnipotence of God, who gave even to these corals the power of producing such miracles. My ideas became confused, when I thought of the time which must elapse before such an island, rising from the immeasurable depth of the ocean, becomes visible above the surface! Hereafter they will take another form; all these islands will unite, and present a circular tract of land, with a lake in the centre; and this form will also again be changed; for these productions, continuing to grow till they reach the surface, the water will disappear, and only one large island will be visible.

I also visited a sixth island, where at low-water I could go dry-footed, and found it similar to the fifth; the surf breaks on the banks which are exposed to the sea, with some violence; the foam rises several fathoms into the air; and large pieces of coral, probably broken off from the reefs by the waves, lie scattered about the land; a number of muscles of various sorts,

as well as pieces of coral, cover the shore. After having in vain looked about for a bird, which deserved a place in our collection, I returned back to our encampment. Our naturalists returned with a number of rare corals and maritime animals, and we listened attentively to their information, till we were disturbed by the rats and lizards which stole our biscuit. The gentlemen maintained that these rats and lizards did not differ from those in Europe: the question was put, where they came from? and this could only be answered by the wrecking of some vessel upon these islands. The same question was asked when we were annoyed by the common flies. We saw a species of shell-crab, which always carries its shell with it, creeping about the trees. Thus the evening approached, and our supper, which consisted of English patent-meat, filled us with gratitude to the ingenious inventor.

During the night we kept a fire burning, and two sentinels with loaded muskets, were placed at the sides of the encampment; besides this, we lay in our clothes, keeping our arms in readiness. Although these measures were almost unnecessary among such a kind-hearted people, I would not deviate from my original custom of using always the greatest precaution. The next morning, having been obliged to wait for the same height of water to float our boats, we were just on the point of starting, when we saw two boats coming towards us from the east. I resolved to wait for them, made the men keep themselves in readiness, and stood myself, with Schischmareff and the naturalists, unarmed, near the shore. Both soon anchored at a short distance, and the skill with which they brought their canoes under the wind, and took in their sails, proved that they were old seamen. Their sails consisted of fine matting, and had such an ingenious cut, that they must catch even the sharpest side-wind. One boat, in which we counted twenty-five men, was thirty feet long, had a small cabin on the *balancier*, and a quantity of ropes hung down from a very high mast. After having finished their work with a great noise, four men jumped into the water and swam towards us. One of them took the lead with a large shell-horn; the others followed with cocoanuts and pandanus-fruit, whilst those in the boats awaited silently the result of their embassy, which advanced with great assurance. The leader, with his shell-horn, distinguished himself to advantage, by his whole demeanour; he was a tall, slender man, about thirty years old; his black hair, neatly tied together on his head, was adorned with a wreath of white flowers, in the form of a crown; round the neck hung many ornaments of various colours; he was also differently, and more tattooed, which gave him the appearance of a man in armour;



. Barick .

his countenance, animated by expressive eyes, was adorned by small mustachios and a pointed beard. Astonishment, fear, and curiosity, were visible in his countenance; but, conquering himself, he advanced with a majestic step towards me, and presented me, with the repeated exclamation *aidara*, with his shell-horn, which, as I afterwards learned, is used by the chief in war, and only delivered to his conqueror, and which they considered us, probably taking us for superior beings. His companions laid the fruit at my feet, looked at us with constrained friendliness, and trembling at the same time, particularly one, who seemed to be in convulsions. We endeavoured to encourage the embassy, and they seemed to be much surprised at our friendly behaviour. I had a red cloth spread out on the shore, upon which I invited the chief to sit down, seating myself by his side, whilst the others stood round us. He seated himself with great dignity, in the Asiatic manner, became more and more lively, and put many questions, at times pointing to the sea, to the sun, and sky. I at last understood that he wished to know whether we came from the sea or from heaven; and, when I made him comprehend that I did not understand his language, he became angry with himself, and spoke louder and quicker, while his eyes wandered from one object to the other, without however interrupting his conversation. If any thing particularly pleased him, he could not withstand the temptation of laying hold of it, and enquiring its use, and, when he understood it, he expressed his astonishment by a long-extended O——h! His companions, who uttered no sound besides, repeated it, and the third echo of the long Oh! came from the canoes. He always called out aloud to them what he had seen; Oh was repeated, and the conversation re-commenced, till a new object attracted his attention. Among other things he seized a tin box, which he examined inquisitively on all sides, and when I opened the lid he started back with his long Oh! He immediately told the people in the boat the wonderful event, and when I opened several boxes, he was quite dumb with astonishment, and there was no end to the monotonous exclamation. I shall call this man *Rarick*, as he was so called by his companions. After having conversed some time with the amiable *Rarick*, and he had forced upon me strings of shells and several other neat productions, I sent for some knives, scissars, and iron, from the boats; and they had scarcely perceived the latter, consisting of pieces of old iron hoops, than they again expressed their astonishment by a loud Oh! and the desire of possessing this treasure was visible in their fierce looks. *Möll! möll!* (so they called the iron,) sounded from every mouth; a terrible noise proceeded from the canoes; and six men, who

could not resist the attraction, sprang into the water and joined us, to look at the iron, the use of which they seemed to be aware of; and I afterwards found several pieces among them, which they had probably obtained from some wreck. I have even seen some beams among them, which seemed to be American timber. I gave Rarick some pieces of iron, a knife, and some scissors; he took the treasure with both hands, pressed it to his heart, and seemed to be at a loss to think how he came into the possession of so much wealth, which the others almost devoured with their looks. When it was their turn, their envious countenances cleared up; the shouts were dreadful; they jumped about with the iron like madmen, and cried *möll! möll!* Their comrades in the boats became uneasy, some ventured on-shore, and, when they too received presents, the noise commenced anew. Now the alliance was formed, the savages became more and more friendly and jocular, and embraced us frequently. I made Rarick understand that I was going to the east, in which direction I supposed he lived; he understood me, and went readily into my boat: we started, Rarick sat by my side, and the savages brought their canoes under sail with great celerity, and began to tack, as their boats were not made for rowing. When we were obliged to keep at a little distance to be out of their way, Rarick lost courage, and thought it rather dangerous to be alone with us. His fear was visible in his motions, notwithstanding all his endeavours to conceal it. Something was frequently bawled to him from the canoes; the conversation between him and his subjects became more and more lively, his fear increased with every stroke of the oars; we endeavoured in vain to calm him, but, before we were aware of it, he was in the water with all his treasures, and swam quickly to his canoe, into which he leaped, and suddenly turned towards Goat Island. They probably had heard of the wonderful animals there, and were going to see them; my mate met them there, they looked with great astonishment at the goats, ran away terrified when one of them began to frisk, and then laughed at each other's fear. Our companions left us at three o'clock, and we made haste to reach the ninth island before sun-set, which we accomplished at seven; and I resolved to stay there for the night, my men being exhausted by rowing against the wind. We were now five miles from the vessel; I saw the sea still open in the east. We crossed the island in all directions without finding any people, who seemed to have just left their huts. In the middle of the island stood a house exactly like those in Goat Island, only considerably larger, and had the form of a Chinese temple; a square roof, neatly made of reeds pointed at the top, rested upon four columns, five feet from

the ground, forming a shelter from the sun, while the cool breeze blew through the columns; the ground was paved with coral-stones, the internal space from the top of the roof down to the columns was separated by a pretty lattice-work, in the middle of which was a square opening, large enough to creep through. The rats have undoubtedly induced the inhabitants to build their houses upon columns, for I perceived that their pantry was within the lattice-work, where the rats could not gain access, owing to the smooth pillars. Their sleeping-houses are built on the ground, and consist only of a roof with two entrances: their day-houses are large enough to contain from twenty to thirty people. The house that we visited was fitted with various utensils; fishing-nets, fish-hooks, lines, vessels made of cocoa-shells, &c. lay in strange confusion. It stood in the centre of a grass-plot, surrounded and shaded by bread-fruit trees, which grew so close together that the house could only be reached by a narrow path. This island seemed to be older than Goat Island, which we concluded from the luxuriant vegetation and the deep mould. Large cocoa-nut trees were also scarce here, but we saw young trees of that kind every where, just planted; by which it seemed as if these islands were only lately inhabited. We encamped upon the shore. The nights here are very beautiful, and are preferable to other warm countries on account of no dew falling, occasioned by there being no evaporation from the coral islands. We could sleep quietly and without fear under the bright sky, refreshed and cooled by the gentle trade-wind, which, uninterrupted by any high island, blew upon us. After supper we laid down on our turf-beds, with the blue sky for our canopy; the sentinels were placed as on the preceding night, and we were only attacked by the rats.

On the 16th of January we were on our voyage as early as six o'clock; we found an anchorage near the ninth island, yet not so comfortable as our Christmas Harbour. It was noon before we reached the thirteenth island, having advanced four miles since the morning: here we rested for some hours. The island was only one mile in circumference, and was uninhabited, at least we could not see any traces of huts or water cisterns. From this place a reef extends to the south, which forms on the south-west side a small harbour, protected against the east. We climbed up a tolerably high tree and saw land in the south-east, by which my supposition that we were in a circle, was confirmed. In N.E., within a mile and a half of us, lay a small island, which seemed to be higher than any we had hitherto seen. After we had dined, the sentinels announced three people coming from the west, along the reef; the low water al-

lowed them this promenade ; and, although the water in some parts is so deep that they must swim through it, the natives frequent this way with as much security as we should our high roads. I recognised through the glass Rarick and his companions, and they soon appeared among us, unarmed, and much pleased to see us again. My friend was very talkative, by which we gradually acquired a list of expressions, which we recorded when we thought we understood them ; thus we learnt that a man was called *mamuan*, a woman *redgini*, a chief is called *tamon*, and such was Rarick of the whole cluster of islands. He now pressed me with great anxiety, and no one could comprehend what he wished to know ; at last he named all his companions, next himself, and, as he was then looking at me inquisitively, we understood he wished to know my name. He was very glad when he found that he was understood, called himself by my name, and myself by his, endeavouring at the same time to learn whether I approved of the exchange. Knowing that it was the custom in the South-Sea islands to exchange names at the formation of friendship, I willingly accepted his offer ; so that I was called Rarick, and he, as he could not pronounce my name otherwise, *Totabu*. Totabu's companions, in the mean time, exchanged names with the naturalists, and our connexion was afterwards greatly strengthened. Totabu's learned questions began anew : my gun, the use of which I did not venture to shew him, occupied him some time ; our clothes were to him objects of unceasing curiosity ; and our shoes excited immoderate laughter, particularly as one of them, on the first attempt to walk with them, measured his length on the ground. But their Oh's became extremely long and frequent when I took off my jacket, and they discovered my arm was white. All the treasures I had given to Rarick the day before, he carried with him, well wrapped up in pandanas leaves, sometimes taking them out to look at them, and to cut something quickly with the scissars, but he soon concealed them again in his girdle. A small looking-glass he always kept in his hand ; he constantly looked in it ; and his companions, whom he now and then allowed to peep, tried to catch their reflection, which afforded them no small amusement. In the mean time Rarick's boats landed near our island : he begged I would accompany him to his home, pointing to the east, and we agreed that he should sail before us, and we would follow him in our boats. We started at four o'clock, taking our course towards the island in the N.E. which I resolved to examine on account of its remarkable height. We reached it in an hour, but could not for a long time find any landing-place, it being surrounded by reefs, and, in order to satisfy our curiosity, we were obliged to

wade through the water up to our knees. The island, about as large as the one I had just left, had scarcely any mould, but was covered with enormous masses of coral, which rose irregularly one above another, and seemed to have been thrown there violently, which might have been occasioned by a storm from the north. Notwithstanding the small quantity of earth, trees, equalling our oldest oaks in height and bulk, grew between the coral. A great quantity of birds of the species of the sea-gull, which build upon the trees, made a terrible noise on our approach. Having found some very good anchorages near this island, I altered my intention of visiting Rarick; I hoped to penetrate with the Rurick to the end of the chain, and, in order to lose no time, I immediately set out to return, after having named the island Bird Island. A long reef extended from it to N.E., at the end of which we descried land; we had seen but few coral banks in our excursion. We reached the ship in the evening.

Observations made in Christmas Harbour.

Latitude of our anchorage, the mean of daily observations -----	9° 32' 36" N.
Longitude from distances between moon and sun, the mean of a great number of observations made on several days -----	190 6 50 W.
Variation of the needle-----	11 0 0 E.
Dip of the needle -----	17 55 0

On the 6th of January, the day when we reached the anchorage, our chronometers gave the following longitude, corrected from the last lunar observations.

Baraud's chronometer -----	190° 13' 30" W.
Hardy's chronometer-----	190 6 48

The longitude of Christmas Harbour has been determined by Baraud's chronometer, which only differs seven miles; this improvement I afterwards made on sketching the chart.

On the 18th we weighed anchor with a N.N.E. wind, and at noon, after some difficulty, we reached Bird Island. The greatest depth which we found on approaching the centre of the circle was 31 fathoms; the bottom consisted of live corals, small pieces of which were brought up with the plummet; near a reef the depth was between ten and twelve fathoms, and the bottom consisted of fine coral sand. At four o'clock P.M. we reached the seventeenth island, which forms the north point of the whole group, and cast anchor at three-quarters of a mile from it, in fifteen fathoms, in fine coral sand. There we rode as securely as in the finest harbour, the ship being entirely protected from north to east, and the water as smooth as a mirror. We now overlooked the whole of the east part of the group, con-

sisting of small islands lying together, which, from the seventh, took its direction to south-east. The seventeenth island, rather larger than Goat Island, is covered with a luxuriant verdure, and large trees, among which we particularly noticed several cocoa-nut trees. We saw several huts; people walking on the shore, were astonished at the large ship; boats sailed for S.E. others came from thence, and it seemed that we were only now in the inhabited part of the island. We were visited by some natives in a sailing boat, and one of *Rarick's* companions gave me some cocoa-nuts, while he repeatedly exclaimed, *Rarick! Totabu! Aidara!* We gave him some iron, but nothing could induce him, or any of his companions, to come on-board. The naturalists went off in a boat to the island, and the savages sailed off at the same time with them. The distance from Christmas-harbour to this spot, in a straight line, is twenty miles. Our naturalists, who returned in the evening, were very much pleased with the reception they had met with from the natives. They had seen only thirty of them; and an old man, whom they supposed to be a chief, treated Mr. Chamisso with a composition made of pandanus and bread-fruit, of an agreeable taste.

On inquiring after *Rarick*, they pointed towards the S.E. and told us that the seventeenth island was called *Ormed*, and an island in general, *Enns*.

On the 19th, our friends from Goat Island arrived here, but would not approach the ship within twenty fathoms; after having shown us some cocoa-nuts, they sailed towards the island, which was rather singular, as we had treated them with so much kindness. They looked at the ship with great astonishment, talking and gesticulating vehemently, frequently calling out, *Ellip Oa!* (large boat). I have noticed that the natives of this group are advantageously distinguished from the Easter and Penrhyn's Islands, by their calm reflection and consideration, qualities which are by no means attached to the latter. In the afternoon I went on shore; our friend from Goat Island had already announced me as the *Tamon Oa Ellip* (commander of the large boat), and they all hastened to the shore to welcome me; a very old man, with a long grey beard, whom I recognized as the chief, said, *Aidara*; he presented me with some cocoa-nuts, and made me enter his hut, where we sat down upon mats, spread out between the four columns. The rest of the men, and some very pretty women, with infants in their arms, formed a circle round me; and all looked at me with silent astonishment; but this silence was suddenly interrupted; panic-struck, they all ran off with loud screams, except the old man, who, tremblingly, kept hold of my arm; the whole con-

fusion was created by a dog, which had followed me from the coast of Chili, and had got into the boat unnoticed. In order to get at me, he was obliged to jump over the shoulders of one of the natives, whose unexpected appearance created this ludicrous scene, which became yet more laughable, when the animal, which was at other times very timid, encouraged by the cowardice of his antagonists, began to bark at them, which drove them up the trees, upon which they climbed with the dexterity of monkeys. I had great difficulty in persuading the old man of the harmlessness of the creature, and, when I had at last succeeded, he called back his subjects, who gradually came, sneaking, and still keeping a jealous eye upon their foe, whose least motion threw them into convulsions. As they know here no other quadruped than rats, which they call *Didirick*, they called the dog, *Didirick Ellip*. It was only after I sent their tormentor to the boat, that their countenances cleared up again, and the old man presented me with cocoa-nuts, and a cake made of pandanus-juice, and which they call *Magan*. I now produced my presents; a large hatchet and two knives particularly enraptured the old man, having never seen so large a piece of iron, but, when I split a piece of wood with it, the whole circle exclaimed Oh! As they chiefly employ themselves in building boats, for which they have no instruments but coral-stones and shells, some idea may be formed of the value they attached to a hatchet. If the men were gratified with knives, the women were still more so with beads and looking-glasses. After having sufficiently admired their treasures, their curiosity was turned to me, but only the old man attempted to touch me. He spoke to his subjects at some length, and they listened to him with gaping mouths; they made me strip my arm, which they touched, to convince themselves that the white skin was not some sort of cloth. I perceived for the first time a sort of modesty among the women, which is quite different from the conduct of the other South-sea Islands. In vain the men tried to persuade them to touch my arm, they refused it with much grace. This natural modesty of the women, I had afterwards frequent occasion to admire. When I put my watch to the old man's ear, the ticking of it made him start back with terror; they all listened, were much pleased with the gold, and the motion of the second-hand astonished them greatly; but, when I made the watch repeat, they became almost afraid of my sorcery; they went aside, talking very seriously upon the matter, till I encouraged them again by some presents. It was then their turn to make me presents; the women gave me neat rows of shell, which they took off their heads and placed upon mine, the men took off their neck-

laces, made with great ingenuity of red coral; the old man gave me a pretty mat, making me understand that I should sleep upon it; and at last both men and women began a song, which, being addressed to me, was probably meant to express their gratitude. In a walk which I took through the island, several of the people accompanied me, and one walked before to show me the best way. I was unarmed, for, among these kind children of nature, who, to amuse me, went playing and dancing before me, I was perfectly safe. The island seemed to be older than all the others which I had hitherto seen; I saw pandanus and bread-fruit trees of an uncommon height and size, but the cocoa-nut tree was scarce, and those for the most part recently planted. Near the houses I perceived a plant with beautiful blossoms, which they only cultivate for the purpose of adorning themselves with its flowers, a trait which shows that these savages have made a great step towards civilization, and that, by reasonable Europeans, they might be brought to the most polished state. On passing by a cocoa-nut tree, I perceived a stone tied to one of its branches; and, when I asked my attendant what it meant, he told me, *tabui*, at the same time giving me to understand, that the fruit must not be eaten. The word *tabui* is very similar to the tabu (taboo) of the other South-sea islanders, and seems also to have the same meaning, but I never heard it again afterwards: it would also be worthy of remark, if we could find words here, which, by their similarity, could prove that the natives of these islands came here from the east; but, from all the words which we had hitherto noted down, we could not find one that led to this conclusion, except the above mentioned. Near the shore we saw a plain tomb, forming a square, built of coral-stone: it seemed to me that the natives were not permitted to enter it, and I afterwards learnt that the chiefs are buried there, and all other corpses are thrown into the sea. In the evening I parted with my friends, who accompanied me to the boat, where they saw a musket, of which they wished to know the use; I gave them to understand that it made a loud report, when they thought it was used like their shell-horn. The old man gave me some more cocoa-nuts, calling out *aidara*.

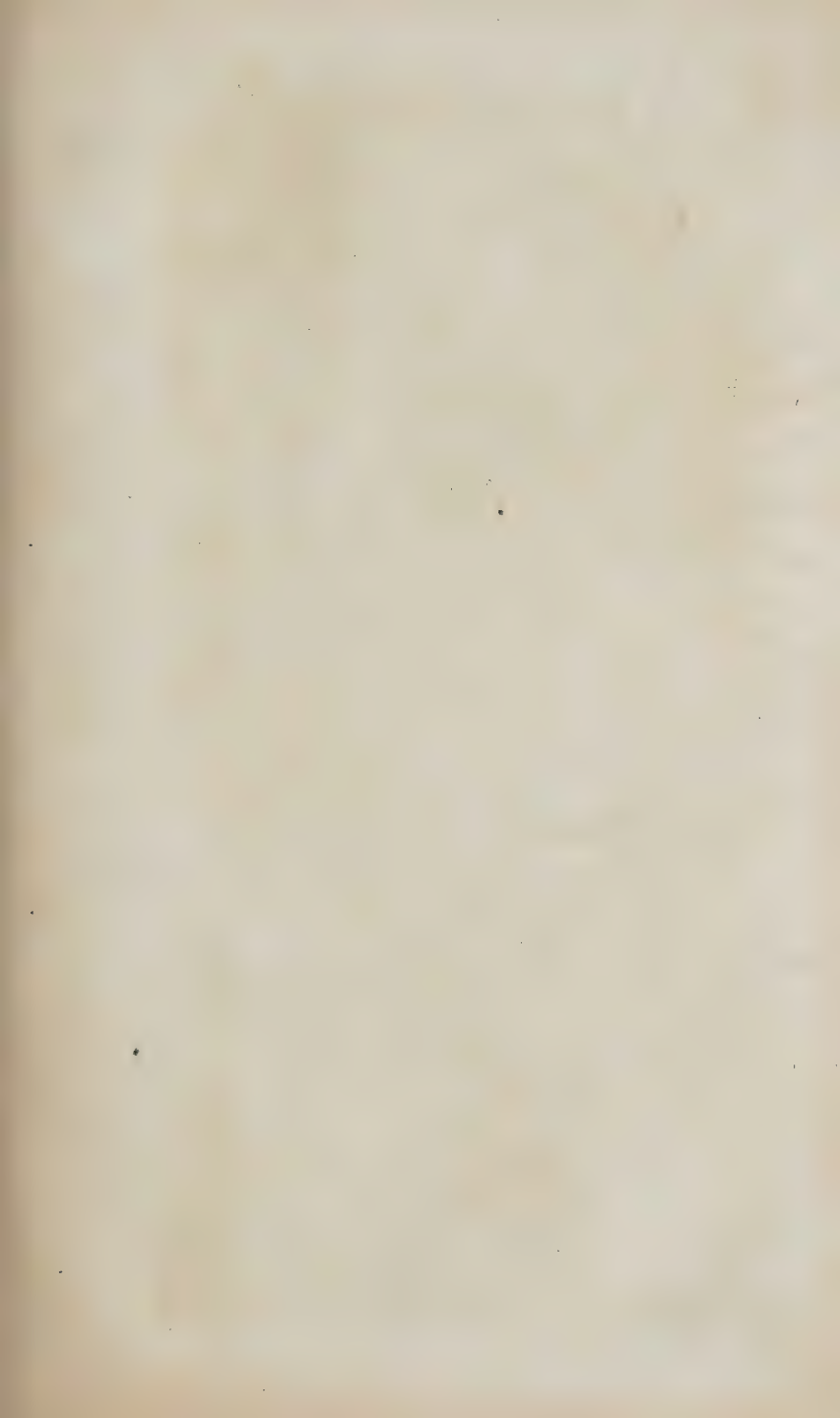
On the 20th, we were under sail early in the morning; a fresh N.N.E. wind favouring the S.E. course, parallel with the chain of islands.

We found the breath of our anchorage-----	9° 33' 16" N.
Longitude of the chronometer-----	189 49 2 W.
Deviation of the needle -----	12 14 0 E.

After having sailed rapidly for one hour, without any interruption from coral-reefs, we descried in the S.E. an island,

much more extensive than either of the others. I steered my course towards it, and my hope of being within a circle increased, when I also discovered land in the S. At nine o'clock I dropped anchor, at a quarter of a mile from the large island, in eight fathoms, over fine sand, and we lay here in an excellent harbour, and in perfectly calm water. A boat, which started from Ormed with us, we found to our astonishment, had sailed as fast as the *Rurick*. I sent Mr. Chamisso on shore, to learn whether this was *Rarick's* residence. He returned within an hour, informing me that *Rarick* was here, and would come to see me shortly; also that he had not found any thing that announced the abode of a great chief; every thing resembled Ormed; even the population was small, only amounting in the whole to sixty inhabitants. In the afternoon a boat pushed from the island, and we soon recognized *Rarick*, who called out—*aidara!* from a great distance. He was most splendidly adorned with rows of shells and flower-wreaths, with various ornaments about the neck, and his body wrapped up in matting. He went on-board without hesitation, followed by a few of his companions, who took courage from his example. Their amazement on first stepping upon deck baffles all description, and they would not have advanced a pace farther, if I had not taken *Rarick* by the arm, and led him forward. At last he recovered from his astonishment, and showed himself more dexterous, inquisitive, and childish, than ever. He jumped from one object to another, felt it with both his hands, asked its use, but never waited for an answer, immediately laying hold of something else; there were too many things that drew forth his attention; curiosity and fear alternately changed on his countenance, he jumped about the deck like a mad-man, first laughing, and then denoting his surprise by heartily exclaiming *Oh!* but, when any thing struck him in a peculiar manner, he cried *Errio! Errio!* (a word which I have often heard upon such occasions.) His attendants also took great interest in the objects around them, but did not dare be so loud in the presence of their chief. By a fault of mine I had almost frightened away my friends: we had two live pigs remaining, which I intended to leave on the island—in order to learn whether they knew these animals, I had them brought out; but this created dreadful confusion, as they no sooner came forth, than they made a dreadful noise. My guests were terribly afraid, *Rarick* took fast hold of me, trembling all over, and screaming louder than the pigs, which I quickly ordered to be taken away again. Our islanders, however, had lost their spirits for the day, and even my presents could not completely restore them. I invited *Rarick* to come into the

cabin, but he prudently dispatched one of his attendants before him, who obeyed him with evident fear, and walked slowly down stairs; but they had scarcely entered when they evinced great surprise at the quantity of shining articles; and, covering their faces with both hands, they exclaimed *Errio! Errio*. A gaze into the looking-glasses at first terrified them very much; struck dumb with astonishment, they looked at each other, and then again at the glass; but, when they had recognized themselves in it, they embraced each other, made the most ridiculous grimaces, and laughed immoderately. *Rarick*, hearing this above, could no longer resist; with one leap he was with us, and his shouts soon surpassed all bounds. They looked like wild children, although the grey beard of one of them betrayed his old age: I have often made the observation, that old age here does not supersede their childish mirth; some who could hardly stir from age, took a lively share in every thing with a youthful spirit, and I never saw them dissatisfied. Probably it is the fine climate, and their living only upon vegetable food which has this singular effect upon them, and the latter may also be the cause of their tall and slender make. Their bones are like those of women; their hands and feet diminutively small. They have little exertion, their only occupation being boat-building; the boats are long and narrow, and lie deep, which enables them to sail against the wind; the sails and ropes are very cleverly made by the women, of the bark of the cocoa-tree. The people are gentle and timid, but they seem sometimes to carry on war, since they are in possession of lances, which are badly made of wood, with hooks or shark's teeth at the top, with which they may certainly inflict severe wounds. Returning upon deck, we found some more islanders, who had come in the interim, and who were told much by their companions. I again made presents to all of them, and *Rarick* was so much pleased with a red apron which I tied round his waist, that he immediately sent for a quantity of cocoa-nuts from the boat, and presented them to me. I accompanied him on shore in his own boat, while the naturalists followed us in ours. *Rarick* took us to his house, which was only distinguished from the others by being more capacious, and treated us with a beverage made of pandanus-juice, of a sweet aromatic taste. Going to a place where they were building a canoe, I saw a piece of iron, four inches long and two broad, which they used as a hatchet, and which had not been given them by us. On inquiry, they explained, that a large beam had been drifted to the island from N.E. that had an iron hoop round it, which they took off, broke in pieces, and divided it among themselves. The keel of the new boat, which had been scooped out with





Interior of a House in the Island of Madagascar.

great labour, with this piece of iron, was laid, and they must require at least a whole year to build a boat twenty feet long. The keel is usually made of the bread-fruit tree, and they would build the whole boat from it, if the fruit of it did not form part of their sustenance; as it is, they must contrive with drifted wood, which is brought hither from the east, either from some distant islands, or from the coast of America, and which is sometimes very difficult to work. Not being able to make long deals with their bad tools, they use for the external lining of the boat small pieces of board, which they fix together by means of cocoa-lines. These boats look at first sight old and patched, but they stop up every hole and crevice so carefully, that very little water can penetrate; perhaps they will make them better in future, by the assistance of the axe and hatchet which I gave them, as I taught them the use of those tools. *Rarick* and some islanders accompanied me on a walk through the island, which was five miles and a half in circumference. The mould was beautiful, and in some places had even formed small hillocks. Bread-fruit and pandanus trees are very numerous, and the latter have a peculiar appearance, the naked roots standing some feet above the ground, and making the tree look as if it was raised upon feet. On our return, we passed by a hut, where I was struck with the appearance of a woman, who seemed a hundred years old, and parched and withered like a mummy; she was bent with age, which had not affected her tongue, for her loquacity was unbounded; at the same time her toothless mouth seemed to abound with wit, as my companions laughed very much. We saw several children, which made the thinness of the population still more surprising, and, like the recent plantation of cocoa-nut trees, seemed to indicate a new settlement of people on these islands. I was particularly pleased with the demeanour of one of my companions, an aged man, who seemed to possess much sound sense. *Lagediack* was the name of my new friend and tutor, for I had really learned more words from him in one hour, than from others for several days; I learned from him that the name of this island was *Otdia*, and that the whole group was named after it. I found it every day easier to understand the language of these people, as it had no copulative terms whatever. I invited my friend to come and see me the next day on-board, by pronouncing the following words, *Ildiu*, *Lagediack*, *Waedack*, *Oa* (to-morrow *Lagediack* come ship); he understood me perfectly, answering *Inga* (yes), and embraced me with additional fervour, because I understood his language. I resolved to stay some weeks in *Otdia*, partly with the intent of visiting the southern group of the island with boats, and partly in order

to get acquainted with the language and customs of this remarkable people. I had no reason to regret this resolution, as by it I was afterwards enabled to make further discoveries.

On the 21st, in the afternoon, I was visited by two boats, in one of which was Rarick, with his suit, and in the other the chief of Egmedio, a small island, south of Otdia, distinguished by a grove of old cocoa-nut trees, situated in the centre of the island, and overtopping all the others. This, the high Bird Island, and another south of our anchorage, are the three main points that present themselves to the eye of the navigator, on arriving near the eastern part of the cluster.

Rarick now introduced to me the chief of Egmedio, named *Langin*; he was a man about thirty-six years old, of the middling size, and very spare; his whole body was tattooed, his dress neat, his conduct modest, and he was excessively timid. My friend Lagediack came with Rarick, and the latter was now bold enough to suffer himself to be led to the place where the pigs were kept, in order that he might look at them more attentively, yet at the least grunt he was ready to fly off. *Langin* climbed up the mast, from which elevation he looked down upon them. They had courage to play with my little dog, but, when he barked at them, all friendship was at an end, and in an instant my guests climbed the rope-ladders; they could never afterwards be reconciled to his sportiveness, and were better pleased by a dog which I had bought in Behring Strait, of the breed used for drawing sledges in Kamtschatka; his skin resembled that of the ice-bear; born in a cold country, he could not bear the heat of this hot climate, and soon died in convulsions. After the savages had satisfied themselves with looking at the objects of luxury, their attention was attracted by the iron; a cannon or an anchor appeared to them an immense treasure, which they examined with loud cries of *Möll! Möll!* I endeavoured to learn from Lagediack, whether he knew any other cluster of islands besides this; he at last understood me, and exclaimed, pointing to the south, *inga eni cef-cef* (yes, islands there). I immediately ordered the compass to be fitted up, round which they all assembled; Lagediack, in particular, soon found out, that, when the case was turned, the needle constantly kept pointing to N. and S., and wished to know how this was effected; I was at a loss to answer this question (even if I had been perfect master of his language), upon which I yet required information myself. He, however, turned the case, till the needle pointed to S.W. the direction where the islands lay, which I immediately noted down upon the slate. Writing was again an object of great

astonishment to them; I explained to Lagediack that every thing we spoke might be written down, wrote down his name, and said, that is Lagediack; he was terrified to see himself represented by such strange characters, and seemed to apprehend that he might, by some enchantment, be changed into those shapes; the others laughed at the funny Lagediack on the slate. I soon relieved him from his painful situation by rubbing out his name; he embraced me with gratitude, and begged me to write Langin; but the latter, who had all the time been looking at my sorcery at a distance only, ran screaming loudly to the other side of the ship, where he concealed himself, while his companions laughed at him, and I finished the sorcery for the day. I made Lagediack understand that I wished him to draw the group of islands of Otdia upon the slate; he took the pencil and drew it in a circular form, making, under the wind of them, five passages, which he called *tier*; he then turned the diopters of the compass to the island in S.W., saying, *ef, ef, ruo tier* (there, two passages). He now drew the other group of islands, which he named *Eregup*, and marked them as a circle of seventeen islands, with a passage under the wind; then pointing to the east, he gave me to understand that, by sailing from hence at sun-rise, one might arrive there at sun-set. He farther told me that on Eregup were to be found bread-fruit (*mia*), pandanus (*bob*), and cocoa-nuts (*ni*); but, he said, the population only consisted of one old man with three wives. When my guests left the ship, I gave Lagediack a hatchet, but Rarick almost seemed to envy him. Some of our gentlemen exchanged their names; Langin called himself after Lieutenant Schischmareff, Timaro; and Chamisso's friend called himself Tamisso; this being the only way in which they could pronounce these names.

With an intention of forming a garden on Otdia, and sowing some of the seeds from Sandwich Islands in the presence of the natives, I went on-shore in the afternoon, accompanied by Mr. Chamisso, in order to select a piece of ground for that purpose. We found an open spot near Rarick's habitation, in the vicinity of a water tank, which answered our purpose, the mould being very excellent. On our return we again fell in with a tomb, similar to that we found on Ormed, and planted round with cocoa-nut trees, and which they told me was that of a tamon.

On the 22d, in the morning, we were visited by several canoes, in which the people brought us cocoa-nuts; as often as any of the natives came on-board, I endeavoured to quell their fear of the pigs, because I intended to take them on-shore soon. After dinner I went on shore with Mr. Chamisso, accompanied by several sailors with spades, for the purpose of

making the garden. All the inhabitants assembled round us, looking at our work with surprise, the design of which we could not make them comprehend, till they saw us put the seeds in the ground. While the ground was being dug, some sailors were employed in making a fence, in which Lagediack joined them, although he had not been requested to assist. The natives were particularly astonished at the latter part of our work, a fence being quite a novel thing to these happy people. When the garden was partly finished, we told Lagediack that they might expect to find here plants and eatable fruit, and a leap of joy indicated that he understood us. He now told the people at full length what was our intention, which was followed by general shouts. We finished our work for to-day, because we did not wish to fatigue the people, and I explained to Rarick and Lagediack that it was their garden, and that the fence was intended to keep every one else out of it; this he likewise immediately proclaimed, feeling himself highly honoured by the distinction; and, having made two different knots of pandanus-leaves, which marked his as well as Rarick's sign, they were hung upon the fence, as a proof that they were the joint-owners of the garden; being such knots as are frequently found upon trees, which they mark as their property, and the owner is distinguished according to the manner in which they are made. Before we returned on-board we took our tea, the utensils and preparations for which severally afforded them subjects of wonder, conversation, and laughter; particularly the water boiling in the kettle, which they thought was alive. I persuaded Rarick to take a cup of tea and taste it; unfortunately it was hot, and he scalded his mouth, and it was with difficulty that I saved my cup from being thrown away. The fright was communicated to all as if by an electric shock, and every one of them was on the point of running away. At last, however, Rarick made up his mind to taste the tea, while the rest looked at him with astonishment, and, when he found it relishing, they all wanted some, and denoted by loud smacking how much they liked it; they also relished the biscuit, but particularly the sugar, as they are all fond of sweets, which forming their chief nourishment they draw from the sweet pandanus-fruit, and this may be the reason that even children of ten years old have seldom sound teeth, which they almost entirely lose at a middle age. This was the first time the natives had been induced to taste our victuals, a proof of their confidence; but, at the same time, with this confidence, their inclination for stealing was likewise developed, and Rarick himself set an example of it: the bright silver spoons excited his cupidity so much that he tried to conceal one of them in his girdle, and was only pre-

vented from doing so by a joke. We, however, missed a copper measure, which the sailors were in the habit of using as a drinking-vessel, and, after much searching, it was found hid among the bushes. On discovering this vice among the islanders, whom I had thought hitherto free from it, I expressed my disapprobation to those that were about me, and ordered my people to be more circumspect for the future.

On the morning of the 23d Rarick and Langin, with a numerous retinue, paid us a visit, and we received them with our usual cordiality. They now went to all parts of the ship without any apprehension, the guns, however, still exciting in them some curiosity, and they fancied that they were used by us in the same manner as their shell-horns. One of Langin's companions stole a knife from the cabin, which we again recovered, and he was very much ashamed. Langin was exceedingly vexed, and left us to sail for his island, whither we were invited. In the afternoon we went on-shore to finish the garden, where we found that the rats had committed great devastation; even our presence did not disturb them, some of them continuing to pull out the seeds, while others carried them off. I made Lagediack understand that the whole of the garden would soon be destroyed, if they did not watch it, and the depredators were consequently soon chased with sticks and stones. We repaired the injury, and planted the remaining part with arbutus, melons, maize, beans, peas, lemons, and yams. Lagediack was well aware that all these vegetables were eatable, and we now had only to explain the manner of cooking them. I therefore divided a baked yam among them, which they found so agreeable that they attached more interest to the garden. We distributed a quantity of seeds among the people, for them to sow where they pleased; Mr. Chamisso here, as well as on the other islands which we touched during our navigation, was unwearied in sowing various seeds, and I am certain that his endeavours have not been in vain. The food of the islanders, in this season, consists solely of pandanus fruit, and they consider the cocoa-nuts, of which but few grew on these islands, as dainties. The pandanus, however, contains but little nutritious substance, and, besides, being by no means abundant, an idea may be formed of the frugality of their habits, which seems to agree with them, as they attain a long and cheerful old age. A triple increase of the population would produce starvation among them; which calamity, however, we hope to see obviated by the sowing of seeds. It is singular that fishing is so much neglected by them; as only a few times during my stay I saw the people angling for a species of small fish from among the reefs. A cock and a hen, the remaining stock of our poul-

try, I gave to Lagediack, whose pleasantry recompensed for the loss of the birds.

On the 24th, we fixed a forge on the shore, several iron utensils wanting repair. The novelty of the scene attracted all the natives, who looked with amazement at the fixing of the machine; but, when the bellows began to work, the coals to burn, and the fire-sparks to fly from the beaten iron, the men laid hold of their wives, these of their children, and all fled. Lagediack was the first whom we could convince of the unreasonableness of his fear; and, to prove to him the utility of the forges, we made a neat harpoon very quickly, and gave it to him. His joy at this present was excessive; holding it above his head, he called back his comrades, who, encouraged by his example, again collected round us. Another harpoon for Rarick, and some fish-hooks for my favourites, were made in their presence, and their attachment to us increased in the same proportion, as every new art raised us in their estimation. The forge was left on shore for the night, under the care of the smith, and Lagediack promised to watch, in order that nothing might be stolen.

The 25th.—The night passed on shore without any one attempting to come near the forge. When the work was begun again in the morning, an old man laid hold of a piece of iron, with which he ran off; but his comrades, pursuing him with the cry, *eabuderi!* (stealing,) overtook him, and were obliged to take away his prey from him by force. Without the least embarrassment he returned to his seat, raving against all who had pursued him, and immediately after tried to seize upon another piece, when he was effectually driven away. This old man, who was here on a visit from another island, could hardly be called a thief, as he committed his robbery publicly, and merely tried to exercise the right of the strongest.

On the 26th the pigs, to which the islanders had by this time become accustomed, were brought on-shore and given to Rarick, near whose hut they were placed within a small enclosure. A sailor was left on-shore for some days to teach the inhabitants how to treat these animals. Rarick was still so much afraid of them that he would not approach them; when, on landing, their grunting struck upon his ear, he and the women, who had never been on-board, fled at the sight of them into the woods. I wandered through the island with my gun, hoping to meet with some land-bird that I might shoot, but I saw none, except a few wild pigeons. Rarick and Lagediack accompanied me, and, wishing to give them an idea of fire-arms, I shewed them a water-snipe, standing at about fifty yards from us, on the shore, and shot it; but in the same mo-

ment I repented my rashness, as both were lying at my feet, whining aloud, and hiding their heads in the grass. It was only after repeatedly assuring them they had suffered no harm, that they rose up, but still trembled and looked timidly upon the gun, which was placed against a tree. The sight of the bleeding bird was not calculated to make a joke of the matter; they remained mistrustful and timid, and ran away as soon as they thought themselves unnoticed. I had great difficulty in regaining their confidence; I never dare shew myself again with a gun.

On the 28th, at seven o'clock, I left the ship, in company with all the scientific gentlemen, in two boats, stocked with provision for three days, in order to profit by the fine weather, for the investigation of the passages pointed out by Lagediack. We first went to Langin's island, *Egmedio*, where we arrived in an hour, and were well received by him. He immediately conducted us into his hut, where he ordered his wife to bring various refreshments, and he could find no end to his expressions of joy at our arrival. Langin, whom we found here a hospitable kind man, was superior to Rarick, who did not answer to the first idea we entertained of him, the chief feature in his character being covetousness. The population of *Egmedio* consisted only of Langin, his wife, and two men, who seemed to be his servants. We now knew from experience that this cluster of islands was very thinly peopled, the southern part of it being entirely uninhabited. There seems to be no accounting for this thin population, except that a short time ago a few people were thrown here from some distant islands, or that they had intentionally settled on this cluster from some overstocked islands. Langin led us about his country, which is distinguished from the others by its high cocoa-nut trees. During our breakfast, he perceived that I was very much annoyed by the flies, and immediately ordered one of his men to drive them away from me with a palm-branch, an attention from a savage which agreeably surprised me. At one o'clock in the afternoon we reached the passage near the high island, the breadth of which, in the narrowest places, was a hundred fathoms; its depth was irregular, and decreased from twenty fathoms to five, and, in some places, to three fathoms; the island consisted of various pointed corals. It was just ebb-time, and the current was running with tolerable velocity out of the cluster; we went out with it into the sea, and we had scarcely got out of the passage when we could find no bottom with the line. It was possible, but dangerous, to pass with the *Rurick*. I called this passage *Lagediack*; it being too late to examine the next passage, which was in the west, we intended returning to the *Rurick*,

but, the wind being very contrary, were obliged to take up our quarters for the night on the large island, which lies south of Egmedio. Happily we found one of our favourites, Labugar, who lived on this island with his family, and an old man, who presented us with cocoa-nuts and pandanus. We encamped near the shore, and Labugar and his old friend amused us till sun-set. When we awoke in the morning, Labugar with his family sat at our feet, where they had been patiently waiting to present us with cleaned cocoa-nuts. I saw here a piece of wood, evidently a knee of a ship, with a few rusty nails still in it. We reached the Rurick at noon.

On the 30th, I sent some of my men on shore, to fell some trees, as I wanted to take in a large stock of wood, there being none to be had either in Unalaska or Behring Strait. On coming on shore myself, I was told that a bucket with iron hoops had been stolen; and to prevent a recurrence of such a theft, I resolved to be severe this time: I peremptorily demanded of Rarick, that he should immediately discover the thief with his booty, and he, much terrified at my countenance, which he had never seen so serious before, assured me that he had already been informed of the circumstance, and had sent after the thief, who had fled to a neighbouring island. I was satisfied with this declaration, but afterwards had reason to think that he was concerned in the matter.

On the 31st, I learned that the bucket had not yet been returned. Rarick was much embarrassed when I asked after the thief; with vexation on his countenance, he addressed himself to one of his people, who, at the conclusion of a long speech, jumped up and ran into the thicket; "this is the thief," said Rarick, "and he will instantly restore the article." I perceived with pleasure, that all who were present expressed disapprobation, particularly Lagediack. After ten minutes the thief brought back his booty, and, although vexed, I pardoned him. I told the people, that, in future, every thief would be severely punished. We then returned on-board, where we were just about to dine, when we were joined by Labugar, Rarick, and a talkative woman, belonging to his family. This female, the most disagreeable of her sex, was the first who had ventured to come upon deck. On our invitation, the men went down with us into the cabin, but the woman took her station on the fore-castle, where she looked down upon us through the window. The merry Labugar ate every thing that was laid before him, asking, at the sight of every dish, "what is that?" but he swallowed it before he could obtain an answer, and took care to promote digestion by hearty laughter; even the salt-pork, which we told them was of such animals as they had seen on land, he relished;

and Rarick, taking courage from his example, at last joined him in the repast. The woman carefully preserved every thing that was handed to her through the window, at the same time opening her mouth widely, to show us that she had lost all her teeth. Lagubar was particularly pleased with the wine, and clasped his stomach as he swallowed it, lest it should run out again; but, when he had drank two glasses, he was quite merry, and began to play the most silly tricks. After dinner we treated our guests with a concert. Three sailors, with a violin, flute, and tambourine, all of them novices in the art, were sent for in the cabin, and their performance seemed heavenly harmony to our savages. The greatest attention was excited by the violin; they would not believe that its sounds were produced by the bow, and took care they did not approach too near the enchanted instrument. They left us in high glee. We went on shore in the afternoon, and were pleased to find that some of the seeds had already sprung up. We also saw some small gardens which were laid out in various places by the natives; and we could say in truth, that our seed had fallen upon good ground, and promised excellent fruit for the future.

On the 2d of February, I visited Lagediack. He described the situation of the cluster of islands, Eregup, in the following ingenious manner. He drew a circle, about the shape of the cluster of Otdia, on the sand, on this he placed a number of large and small stones, representing the islands; after he had pointed out the several passages, he said, this is Otdia. He then represented in the same manner the cluster of Eregup, saying that, if I sailed for a day towards S.W., I should reach it. I now asked him, whether, by steering to N., E., S., or W., any islands could be met with. He understood me; and, having collected a large number of stones, he drew, N. of Otdia, three clusters of rather a smaller dimension, the distances of which were always one day's sailing, except the last, which was two, and he named them Ailu, Udirick, and Bigar. At a distance of a day's voyage to the N.W. he drew another, which he named Ligieb. Having done in the north, he passed to the south, where he marked five other groups, the distances of which likewise were from between one to two days navigation, and named them Cawen, A-ur, Mediuro, Arno, and Mille. With this knowledge, I now resolved to leave Otdia as soon as possible, to continue my investigation; by our account, Kutusoff and Suwaroff islands lay nearly in the same longitude with Otdia, the latitude only differed by $1\frac{1}{2}^{\circ}$, and I had no doubt that they were among the clusters pointed out to the north.

On the 3d, I dispatched my lieutenant in a boat to investi-

gate the second passage, and he returned with the account that it was perfectly safe, being 150 fathoms wide in the narrowest parts; in the middle he found no bottom, and near the reefs 11 fathoms depth. On this pleasing information, I ordered the Rurick to be put in readiness for sailing within a few days. This day we had an unpleasant occurrence; Lagediack, who dined with us, brought with him the thief who stole the bucket, but the latter was refused admittance into the cabin, and therefore was obliged to content himself with a seat near the window; Lagediack compassionately handed out to him various eatables, but he liked the shining knives better than eating, and, having asked for one to look at, he hid it in his girdle, when he thought himself unobserved. I was silent till the thief was about leaving us with Lagediack, when on giving a signal, four sailors laid hold of him, took away the knife, and then, having laid him down, gave him a severe chastisement. Lagediack was much frightened, begged for his friend, frequently repeating, *cabuderi emo aidaro* (stealing not good); the latter, however, after the chastisement, went quietly into the boat, and only seemed to regret that he had lost the knife. This event caused much merriment on the island, and in the afternoon I was again visited by Lagediack and Rarick, who brought us cocoa-nuts and baked fish, as a proof that they did not disapprove of my conduct. I now announced to our friends that we should soon leave them, by which they were disagreeably surprised; and Lagediack redoubled his tenderness, by constantly embracing me.

On the 6th, we had several parting-visits; our intimate friends not leaving us the whole day, and I pleased Rarick and Lagediack by giving them some pieces of sail-cloth for their new boats. In the afternoon we received a visit from the old chief of Ormed; we all respected this venerable old man, and he now received several presents; among which was an old coat, with bright buttons, which he immediately put on. For the last time to-day I enjoyed the sight of our garden, where every thing looked prosperously; and, with tears in their eyes, Lagediack and Rarick left us after sun-set.

Observations near the Isle of Oldia.

The mean of our daily observations gave for the latitude of our anchorage-----	9° 28' 9" N.
Longitude deducted from the mean of 300 distances between the sun and moon, taken on various days-----	189 43 45 W.
Variation of the needle-----	11 38½ 0 E.
The mean height of the thermometer-----	82 Fahrenheit.

The mean height of the barometer, (which during the whole of our stay had but varied a few lines)----- 29° 7 inches.

The low land here having no influence on the atmosphere, the barometer rises and falls as regularly as it usually does between the tropics. The mean of our observation near Otdia, gave for the time of high water, in full and new moon, two hours and thirty minutes; the highest difference in the height of the water amounted to seven feet.

This group, consisting of sixty-five islands, I named Rumanzoff.

From Radack to the St. Lawrence Islands.—On the 9th, at day-break, we weighed anchor. The weather was as favorable as the people, who now bade to us their last farewell from shore. I took my course to the passage Schischmareff; we only saw two coral-reefs, to the right, at some distance. We were followed by a canoe from the isle of Ormed. At eight o'clock we reached the passage Schischmareff, which is in every respect preferable to Rurick-strait, as it is much broader, and ships may sail in and out with the usual trade-wind, without being obliged to tack in the channel itself; besides, it is easier to be found, as it lies between two islands, and may be seen from a distance, whilst the other appears like a continued reef. In the middle of the strait, the watch upon the mast-head cried "land!" In S. by W. we descried a few small islands.

I immediately took some altitudes, and obtained for the longitude, by the chronometers, 189° 50' 00"
The latitude, by the ship's account, deducted
from our anchorage, gave----- 9 42 57 N.

We did not expect to have reached Eregup so soon, and now found that Lagediack's day's voyages were no criterion for us.

At ten o'clock we reached the north point of the cluster Eregup, which only consisted of coral-reefs; then, taking our course westward, we sailed through the channel that separates Eregup and Otdia, in order to get under the wind of the former. In the channel, the current produced a great noise; the waves rose like the surf over a reef; but, on throwing out the plummet, we found no bottom in 100 fathoms. At noon, having doubled the N. point of Eregup, we were in smooth water, and pursued the direction of the group to S.E. on the W. side, within a distance of one mile. By a good observation, we were in lat. 9° 9' 6" N., long. by the chronometers, 190° 2' 47". We soon obtained a view of the whole cluster, and found it considerably smaller than Otdia; its length being only twenty-four, and its breadth four miles. The whole circle is formed by one reef, containing a few islands, as may be

seen by the accompanying chart of Radack and Ralick. At four o'clock we were near the south point of the cluster, which closes with the largest island, and probably bears the name of Eregup; at least, it was the only one where we saw cocoa-nut trees and people, of whom, however, we saw only three, who when on shore. I sent Lieut. Schischmareff to examine a passage which we saw from hence, but his report was, it might perhaps be navigable, but that it was dangerous from its many windings, and only probably with a westerly wind. I now gave up the further investigation of this cluster, which appeared to be too insignificant to lose much time upon; we finished the survey of it, and at seven o'clock sailed round the south point. We now bent our course towards Cawen, which, according to Lagediack's account, lay in the east. The passage, which he pointed out near the north point of Eregup, we did not find. I named this group, after our late minister of the navy, Tschitschagof.

Feb. 8th.—The S.E. part of Eregup lay, at day-break, N.W. of us, and we had to encounter a current from the N.; the wind allowed a northern course, and, at seven o'clock in the evening, we saw in the north the high island of the group Otdia, near which is the passage Lagediack; to the left, we perceived, at a distance of three miles, the group Eregup. A good observation at noon gave us for the latitude $9^{\circ} 9' 49''$ N., longitude, by the chronometers, $189^{\circ} 51' 14''$. I found that the current had driven us since last evening, six miles and three-quarters to the south. The whole day and night were spent in tacking.

On the 9th, we lost sight of Otdia. From a number of observations which we took between the sun and moon, we made the longitude $189^{\circ} 20' 16''$. The current had carried us, since yesterday at noon, nine miles and a half to S.E., 28° , and for that reason we could not yet be on the point from which I hoped, with a S.E. course, to fall in with the group Cawen.

On the 10th, at six o'clock A.M. we were on the desired point, and advanced as rapidly as the wind would allow. At noon, we found the latitude $8^{\circ} 55' 52''$ N., the longitude, by the chronometers, $189^{\circ} 20' 13''$ W. The current had driven us, in twenty-four hours, twelve miles and a half to S.W. 88° . We had just laid our instruments aside, when land was descried in the east, at a distance of ten miles. Lagediack had pointed it out correctly; its distance from Otdia was forty-five miles. When we approached the west point of the group, which was richly covered with large palm-trees, we saw in S. and S.E. a chain of islands, extending far under the horizon. This point was the largest island of the group, which, as





Chart
of the Chinese Empire.
RADACK and RALICK,
— agents —
of the Chinese Empire.

Scale of the Chart in Nautical Miles.

we afterwards learned, bears the name of Cawen. At four o'clock P.M. we pursued the chain, under the wind, within half a mile to the south. We had only advanced nine miles, when the sun set; we therefore tacked about, and returned from whence we had started. We had seen two passages between the reefs, one near the isle of Cawen, and the other more to the south; and I resolved, if possible, to penetrate within this cluster of islands on the next day. On our return, we saw several people on Cawen, looking towards our ship.

On the 11th, at day-break, the wind became violent. At six o'clock we saw the isle of Cawen, and at half-past eight we were in smooth water, out-side the passage, within one fathom of it. We could see from here whether the water was deep enough for us, the sea about the coral-islands being so clear, that we could discern the bottom sailing in eight fathoms; besides, we were so much accustomed to examining depths, that we could conclude upon them by the colour of the water. On approaching the passage, we found it not so wide as it appeared at a distance; two shallows, concealed by the water through which we were obliged to tack, reduced it to less than a quarter of a mile; and, although the undertaking, with so violent a wind as it then blew, was dangerous, we nevertheless resolved boldly to encounter it. While we examined the passage, two boats, each carrying seven islanders, sailed towards us, notwithstanding the high wind from the eastern part of the islands; but they kept at a distance of 200 fathoms from us, tacking about, as we did. While we were admiring their dexterity in managing their boats, and the possibility of carrying so large a sail in such high wind, one of the boats was upset. We saw the crew swimming; some of them, as we thought, women, quickly seated themselves on the keel, the others tied ropes round their waists, and towed the boat on shore, swimming. In the mean time, the other boat, without taking notice of its companion, sailed towards the east, where it landed. Soon after this two larger boats made towards us, from Cawen, but kept under sail, the people in them making various signs, and calling out to us in words which we could not understand, nor hear distinctly for the roaring of the wind. Neither the appearance of boats nor the people's costume differed in any way from that of Otdia, and we could doubt no longer but that they were of the same nation. These people took no interest either in the fate of the others, who were yet half a mile from shore, making the greatest exertions to reach it. It was nine o'clock before we penetrated inside the cluster, where we found room to tack with security, as there were no reefs visible. We found the depth, upon a bottom of live coral, in the middle of the channel, twenty-three fathoms, decreasing on both

sides to five fathoms. We had scarcely reached the basin inside the cluster, where the depth was between twenty and thirty fathoms, when the violence of the wind compelled us to run one reef in the topsails; we nevertheless advanced quickly in tacking, the water being perfectly smooth. At three o'clock P.M. we reached the chain of islands, situated north of the strait, and, half an hour later, we cast anchor two hundred fathoms off a small island, in a depth of twenty-three fathoms, upon fine coral-sand. The Isle of Cawen lay five miles S.W. from us, and the canoes of the natives had left us. On examining the small island, we found it of the same construction as Rumanzoff Islands, and it seemed to be uninhabited; there were only a few small huts, probably used by the natives on occasional fishing excursions. Rats were here also in great numbers.

On the 12th of February, towards noon, two large boats from the eastern part of the group came so near to us that we were enabled to count in them thirteen men and three women. We saluted them with the word *aidara*, which they joyfully returned, at the same time making towards us; and, when we invited them, in their own language, to come to us, they hesitated no longer, and only asked for a rope to be thrown to them. The rope fell into the water, instantly one of the islanders jumped in and fastened his boat to it, swimming. This being done, two of the natives, among whom I recognized the chief, by his ornaments, came upon deck. His head was adorned with white feathers and an enormous wreath of flowers, his neck with various bones wrought with much skill, and his body was wrapped round with fine matting. He was well-made, tall, and muscular, and was somewhat engaging in his whole person. His first enquiry on getting on-board was to know who was the *tamon*, and, being introduced to him, he presented me with cocoa-nuts, placed his flowers on my head, frequently repeating the word *aidara*. He then told me that he was *tamon* of the island *Torua*, situated to the east, whither he invited me. In order to gain his full confidence, I offered him an exchange of names, and instantly it was announced in the boats with loud shouts that their chief's name was now *Totabu*, and mine *Labadeny*. No alliance can be formed here without presents; I therefore gave to my new friend several iron tools, which he committed to the care of his treasurer, after he had for some time delighted himself with looking at them. I omitted to mention an observation which I had before made in Otdia, viz. that every *tamon* has always his treasurer with him, who takes all the presents under his care, and seems, at the same time, to be the first favourite. Labadeny's treasurer, a

jester, was thin, quick in his motions, exceedingly lively, talked much, accompanying every word by vehement gesticulations; in short he was quite the counterpart of his grave master. Our guests, encouraged by the friendly reception which they had met with, walked fearlessly upon the deck, to satisfy their curiosity, which was particularly excited in the treasurer, who inquired after the use of every thing, constantly exclaiming *möll! möll!* at the sight of the quantity of iron about him. Whenever I was not near him to explain any thing, he ran after me, and, seizing hold of me, dragged me to the spot; all his observations he rapidly communicated to his master, and, at every striking object which he saw, he jumped upon the bulwarks and bellowed to his gaping comrades in the boats the wonders on-board, probably making additions, to excite greater astonishment. Before Labadeny left us, I informed him that we should pay for cocoa-nuts with iron. We now were perfectly convinced that these people and those of Otdia are of the same nation; the only difference which we could perceive was, that there was more costliness in the dress and ornaments of the natives of Cawen. Cawen is the largest island of the cluster, being two miles and a quarter in length and three-quarters in breadth. During the night we had a storm. It is a singular circumstance, that the barometer stood higher in this group than at Otdia; its greatest height among those islands having been 30,00 inch., and here it suddenly rose, and this in stormy weather, to 30,80 inch.

On the 13th we could not leave our anchorage, on account of the violence of the wind and the dulness of the weather. However it cleared up in the evening, and we hoped to proceed on our voyage the next day.

We found the latitude of our anchorage	----	8° 54' 21" N.
Longitude, by the chronometers	-----	189 7 59 W.
Variation of the needle	-----	11 30 0 E.
Longitude of the centre of the island Cawen	--	189 11 27 W.

On the 14th we were under sail at six o'clock A.M. Labadeny kept tacking with his boat in company with us towards the east. Passing by the islands, we saw them covered with palm-trees. Many people were walking on the shores; columns of smoke issued from all sides, boats were coming and going, and the whole presented a very animated picture in comparison to the eternal silence that reigned at Otdia. When, in tacking, we came towards the middle of the basin, we had a distinct view of the islands forming the southern part of the cluster; the depth was thirty-two fathoms; the bottom consisted of live coral, and near the islands fine coral sand; there were no reefs there to throw obstacles in the way of navigation, as in Otdia. In the

afternoon we reached a small island, called by the natives *Tjan*, which was well covered with cocoa-nut trees, and where we saw several huts and people. We approached it within two hundred fathoms, and found a convenient anchorage, protected by a reef to the east, where we dropped anchor, in order to form an acquaintance with the natives. Labadeny came on-board and begged us to sail to the more easterly island, *Torua*, this one, although belonging to him, not being his usual place of abode. I satisfied him by promising I would sail there the next day, and went with him on-shore. The nature of the shore on this island is such that it cannot be reached with a boat; Labadeny carried me there on his back, where several islanders were assembled. Having safely landed me, he set me down, and then made a long speech to his people, of which I only understood that he introduced me as a mighty *tamon*; this being done, he took me by the hand and led me to a capacious cottage, in the interior of the island. Here we were surrounded by all the inhabitants, with several girls adorned with flowers among them. Old and young endeavoured to present us with cocoa nuts; but the treasurer supported the conversation by himself. He told them a long tale of all the things he had seen on-board the *ellip oa* (large boat), particularly of the large quantities of *möll möll* that was there, and, finally, to complete the astonishment of his auditors, he drew forth the presents that his master had received. The friendly and rational behaviour of the natives made their conversation agreeable, especially as, on account of their greater numbers, they are more courageous than the natives of Otdia. I willingly yielded to their wishes of examining every thing closely, except that of undressing myself, to satisfy their curiosity. We now took a walk through the island, which is about one mile long and a quarter of a mile broad; and, to judge by the number of huts, it contains from fifteen to twenty families, a larger population than the whole of the group Otdia. Cultivation is so little advanced here that they only rear productive trees, such as bread-fruit, pandanus, and cocoa-nut; every proprietor has his small grove, surrounded by a line, tied from tree to tree, probably with the intent that he may not trespass upon the property of others; and this inclosure is sufficient to protect the property of each individual. The island resembles an English park; paths are meandering in all directions through the clusters of trees, in whose shade the huts are scattered, and we passed by none of them without being requested by the housewife to sit down upon clean mats, and to take some refreshment. Here, as well as in Otdia, we looked in vain for any trace of their mode of worship; but there is no doubt that they adore an invisible Being, as it cannot be ima-

gined that so moral a people should be without any religion. They were in possession of two hens, of a small breed, the only fowls on the island; Labadeny offered them to me as a valuable present, but, far from wishing to deprive them of their little treasure, I only regretted that it was not in my power to add to their stock. Mr. Chamisso discovered three kinds of taro, which were carefully cultivated in a damp spot; but the quantity of them was so small that they are probably eaten only as a dainty and not for common food. When I was returning on-board, the natives brought me so many cocoa-nuts that the boat was soon filled, for which presents I distributed iron among them. I was prevented leaving Tjan to-day by the state of the weather, and therefore went on-shore in Labadeny's canoe. The wind blew violently when we left the ship, and I myself experienced how easily these boats may be upset, when they are not kept in trim. One of the natives in hoisting up the sail stepped too far on one side, and we should have been upset, had not the others quickly thrown themselves upon the opposite side. We were well received on shore, and taken to a hut, under which we sat down upon neat matting. Here I found Labadeny's mother, who became so fond of me that she only called me by her son's name, and talked very much, to which I had no objection, as it familiarized me still more with the pronunciation of the language. I saw with pleasure that the natives of this island were as clean in their dress and domestic habits as those of Otdia; but, like them, they have this very disgusting custom—a pretty young woman, who sat opposite to me, pulled her husband's head upon her lap, in order to clean him from vermin, and whenever she caught any she bit it between her teeth and swallowed it; it seemed to me that the women only are entitled to this kind of chase. The natives of the Alioutskan Islands are said to have had the same custom formerly, and some tribes on the N.W. coast of America still follow it. As they were preparing for dinner, I saw for the first time in what manner they light their fires: a soft piece of wood is rubbed with a pointed piece of hard wood till it is scooped out, the dust thus produced serves as tinder, and, when the friction has attained a sufficient heat to kindle, they blow upon it, holding at the same time some dry grass over it. Before the cook began his office, he washed his hands; when his work was done he spread out a clean mat before us, upon which he served excellent boiled fish and baked bread-fruit, placed upon clean leaves. Labadeny tasted first of every dish, then having made a short speech, of which I understood nothing, he invited me to begin. Only he, his old mother, and myself, were allowed to dine at the table; the treasurer and another, whose office I could

not learn, were afterwards permitted to eat the tails of the fish, which we had left. On my returning to the ship I had so many cocoa-nuts given to me by the natives that we had enough to give one to each man of the crew daily for some time. We found here, likewise, some excellent water in tanks. Mr. Chamisso gave some seeds to the natives to-day, and sowed some himself.

We found the latitude of our anchorage ---- $8^{\circ} 52' 39''$ N.
Longitude, by the chronometers ----- $188^{\circ} 58' 29''$ W.

The high water at new-moon is at 4 o'clock 35 minutes P.M., and rises five feet.

On the 16th we left our anchorage, sailing close along the chain of islands towards the south. At all the islands we saw crowds of people on the shore as we passed. Having sailed seven miles, a large well-manned boat came towards us from one of these islands, which, as we afterwards learned, is called *Olot*; as we were still continuing our course, it followed us; Labadeny's boat was also seen at a distance. We had now a tolerably large island before us, from which the chain took a southerly direction; and, as the cluster seemed to terminate here, I dropped anchor, in order to determine the situation. Through the circuit which the island takes, we rode near it, perfectly covered from the wind, in twelve fathoms. It happened to be Labadeny's residence, *Torua*. The boat that had followed us from *Olot* came beside us, and the islanders, without hesitation, came on deck when they heard themselves addressed in their own language. The chief of the canoe, a young man of about twenty, after having ascertained that I was the *tamon*, presented me, in a timid and friendly manner, with some fruit, and I soon gained his confidence by a few presents that I made him. I learned that his name was *Langedju*, and that he was chief of the island of *Olot*; he was more tattooed, and consequently of a higher rank than Labadeny; he wore, also, more ornaments than he did; his countenance was lively and full of expression, and I was pleased with his whole demeanour. The ship and the iron was again admired, and one of the natives even took some of the latter, but he was caught. The chief afterwards ordered, with much warmth, that not the least thing should be taken. I was obliged to exchange my name with *Langedju*, although I apprehended that I should give offence to Labadeny; who soon arrived, and could not conceal his resentment when he found what had taken place. *Langedju* was prudent enough not to notice it, and I endeavoured to reconcile my old friend by presents, but he would have no connexion with his rival. I went on-shore with both, and was well received by the natives. *Torua* is twice as large as *Tjan*, but not so populous

in proportion, although the island seems to be fertile. Labadeny left me immediately on landing, but Langedju accompanied me, on my walk, with two of his subjects, laughing at Labadeny. I saw several fowls running about wild. After having walked some time, I sat down on the shore with my new friend, in order to obtain further knowledge of this cluster of islands. I drew the cluster in the sand, as it had been drawn by Lagediack; my friend agreed that the names of the islands, as well as their number, were correct, but he drew them rather differently in their situations; besides the cluster, he pointed out two single islands, of which I recognised one, situated east of Ai-lu, as the New-year's Island; the other lay at a distance of a day's voyage in the west; this one he called *Temo*, and the former *Miadi*. His chart, as I afterwards found, was perfectly correct. On my return I saw a party of the natives sitting round a fire, boiling something in cocoa-nut shells. I accepted their invitation to sit down with them, and now saw that they were pulverizing cocoa-nut wood perfectly rotten, which they made into a thick pap, by mixing it with water; this they afterwards baked in small cakes, which, however, I found quite tasteless. I was much better pleased with the tender conduct of the parents towards their children, which I perceived here again in many instances. I remained before this island till the 19th; Langedju scarcely ever left the Rurick, and once brought me some taro-root, which he held in great estimation. We exchanged several cocoa-nuts for iron; the sailor who presided over this business was constantly kissed and caressed by the natives, probably hoping that their tenderness would be converted to some profitable account.

We found the latitude of our anchorage----- 8° 43' 10" N.

Longitude, by the chronometers-----188 50 25

Variation of the needle----- 10 50 0

Our distance from Cawen, in a straight line, was twenty-four miles.

On the 19th we set sail at six o'clock in the morning, following the chain, which only consisted of small islands to the south; after having advanced ten miles it suddenly bent to S.E.; in this direction we discovered an island of a somewhat large size, and now perceived that we were at the S.E. point of the group, stretching from here first to W. then to N.W., by which course it forms a bay. On approaching the large island, which, as we were afterwards informed, bore the name of *Airick*, we discovered other islands beyond the reef in the south, which we soon recognised as the cluster *Aur*. At nine o'clock we cast anchor at sixty fathoms from the island of *Airick*, in a depth of eight fathoms, and found this anchorage to be the best of all,

Airick is nearly of the same extent as Tarua, but commands a finer prospect than all the islands we had as yet seen. The whole shore was thickly covered with palm-trees, under the shade of which several habitations were scattered; some boats were sailing, others laying at anchor, and it seemed to us as if we were in a much-frequented harbour. Crowds of natives were collecting on the shore looking with astonishment at the large ship. Our scientific gentlemen went on-shore, and met with a friendly reception. Mr. Chamisso soon returned, bringing with him a youth of about eighteen, who had been introduced to him as the *tamon*, and who was followed by his people in several boats, when they saw their young chief approaching us. We received a quantity of cocoa-nuts, for which our old iron was taken in return with perfect satisfaction. The *tamon* looked at every object with the greatest interest; an old man, who seemed to be his guardian, never left him for a moment, and at last both fell upon the idea of measuring the length and breadth of the ship, and the height of the mast, with a line, which was afterwards preserved. Seeing two gentlemen fencing, he also wanted a rapier, and displayed very great dexterity in his lesson. In the afternoon I went on-shore with the *tamon*, followed by all the canoes; vast numbers of people were collected to see the *tamon* of the ship, but my young friend immediately introduced me to an elderly lady, who, he told me, was his mother, and queen of the island; she sat, surrounded by three ugly old maids of honour, on a mat, before a pretty house; I was invited to sit down by her side, and the people formed a close circle round us. To all my polite observations, however, I received no reply, and, although her majesty was constantly looking at us, her royal lips remained mute. I at last gave up the attempt to make her speak, convinced that high rank imposed silence upon her, particularly as her ladies kept constantly talking. I made the queen a present, which she acknowledged by a kind nod of the head, yet without being touched by her; her ladies took it up, and, after having laid some cocoa-nuts and some rolls of *mogan* at my feet in the greatest silence, the queen withdrew into her house, and the audience was terminated. The young chief now took me to a roomy house, resting upon four pillars, where I found a party of young ladies, tastefully ornamented; one of them, the sister of my companion, sat apart, and I was invited to sit down by her side, while the people again formed a close circle around us. The ceremonial was not so strictly observed by the princess as by her mother; she made use of her privilege of speaking, and was much pleased when I addressed her in her own language; the people, too, were allowed to be cheerful,

and to carry on their jokes. For the purpose of amusing me, the princess ordered the performance of a pantomime, with songs, called by the natives *eb*. Two of her companions sat down by her, the one beating a drum, and the other occasionally joining in the solo-song of the princess, but which rather resembled a wild screaming. The name *Totabu* was frequently mentioned, and I regretted that I did not understand the words. The pantomime would have been tolerable had they not made so many contortions of their necks, and so much rolling of eyes, at the same time foaming at their mouths. On parting, I made some presents to the princess, at which she was so pleased, that she gave me her own shell-necklace in return. Neither the brother or sister had yet been tattooed; probably this operation is not performed so early here, because it is generally done at one operation. Langedju told me, that, after the tattooing, the body was much swelled, and people suffered very great pain, and certainly their suffering must be severe. Capt. Krusenstern's mate, a tall strong man, fainted away from being a little tattooed in the arm. It seems to me that the tattooing, in these islands, is a religious ceremony, at least, several of our gentlemen were refused it in Otdia, being told that it could only be performed in Eregup. In my walk on the island I saw nothing but fruit-trees and taro-fields. Aur is only ten miles distant from the group Cawen.

On the 20th, the *Rurick* was surrounded for the whole day by boats, filled with guests; in the afternoon the princess appeared in a canoe, and, as she did not venture on-board, I sent her some presents. In the west we descried a large boat, carrying twenty-two men and women, conveying utensils of all sorts, which made us conclude that they were on a long voyage. When it arrived beside our vessel, the chief of the isle of Cawen, a man seven feet high, came upon deck, and presented me with a large roll of *mogan*; he advised us to sail to Aur, where we should find the *tamon ellip* (great chief,) of Cawen. Our guests became emboldened by their large numbers, and nothing but the idea that we were supernatural beings prevented them from seizing upon every thing that pleased them. It was now dark, and the watering-party we had sent on shore had not yet returned, when the mate called out from land that a man was missing. As the natives had always showed themselves unarmed, I had also, to prevent mistrust, sent out my people unarmed, for which I now bitterly reproached myself. I immediately dispatched an armed boat, at the same time firing a gun, and throwing up a rocket, which had the desired effect. The report had scarcely been heard, when a terrible howling was raised on the whole island, which lasted for a quarter of

an hour, and in the mean time our boats returned. The sailor who had been missed, candidly confessed that he had been led astray by a girl, who seduced him to a hut, in the interior of the island, till after sun-set; here several islanders were collected, and confined him; a fire was lit, and he was already stripped, when all of them fell down, as if thunder-struck, at the report of the cannon, and he happily escaped.

On the 21st, the fright still continued, and we had no visitors, till some of our gentlemen went on shore; on being questioned respecting the last night's phenomenon, they told the natives that I was then paying a visit in heaven; and they afterwards behaved very modestly. As I intended to leave Airick the next day, I paid some visits, and was very respectfully received. The old queen I could not see, as I was refused admittance to her, by two sentinels, armed with lances. I was, however, allowed to make as many presents as I pleased to the princess, and some of the chiefs. Labeleoa ordered a parting *Eb*; three men and three women sat down in a semi-circle; two drummers sat before them; with terrible voices they then sung the words, *Totabu, Aidara, Möll!* and every one of their motions was directed to me. I saw herons running about tame, near the huts, and also wild, on the shore; besides these, there are here only strand-snipes, and a species of pigeons. The rats are so bold, that, while the natives are eating, they take away their food.

We found the longitude of our anchorage,
from fifty distances taken between the sun
and moon-----

	188° 52' 7" W.
By the chronometers-----	188 49 25 W.
Latitude, the mean of three observations----	8 31 11 N.
Variation of the needle-----	11 11 E.

The observations for the time of high-water, at new and full moon, gave one hour and fifty-two minutes; the greatest difference in the height of the water amounted to four feet. In the direction N.W. and S.E. the length of Cawen is thirty miles, its breadth only eleven miles and a half. The uniformity of the three clusters, Suwaroff, Cawen, and Otdia, is certainly not accidental, but this formation is peculiar to the corals.

On the 22d, we bent our course to the isle of Olot, near which we cast anchor, at ten o'clock A.M. upon a bottom of fine coral-sand, in a depth of eight fathoms. Labeleoa, who intended to accompany us to Aur, started at the same time with us, but bent his course to the isle of Cawen, when he saw us take the direction of Olot. We had scarcely arrived when we were visited by Langedju, and soon after also by the chief of Torua,

and I succeeded in reconciling the two rivals with each other, and the latter with me. We found Olot less cultivated and populous than the other islands. Langedju took me to his taro-plantation, which, although the largest in these parts, was not yet sufficient to keep an individual for a month. A short distance from the plantation I perceived a banana-tree, carefully hedged round, and was informed that it had but lately been transplanted here, together with the taro from Aur. I trust that all these details may induce some future navigator to observe the progress which in the course of time will undoubtedly be made in these islands. Mr. Chamisso distributed some seeds among the natives, and taught them how to sow them; but for his trouble they stole his knife, which, however, was restored to him, on my seriously insisting upon it. Langedju took us at last to his hut, from which he had previously withdrawn his pretty wives, a degree of mistrust we had not yet met with among these people, and all this time he pretended to be my most intimate friend. We were here treated with an acid dough, made of bread-fruit, which we found difficult to swallow. Our host said that he knew Rarick, Langin, and Lagediack; which made us suppose that the inhabitants of the various clusters of islands have intercourse with each other.

The latitude of Olot we found----- $8^{\circ} 46' 4''$ N.

Longitude by the chronometers----- $188^{\circ} 50' 18''$ W.

The whole cluster of Cawen consists of sixty-four islands.

On the 33d, we left Olot, and took our course towards the passage, through which we had entered. The natives pointed out to me a broad opening between the reefs, west of Airick, which I have marked in my chart. At nine o'clock we passed through the passage near Cawen, and then bent our course S.E. at a little distance from the chain, forming that part of the cluster that lies under the wind. I named the cluster of Cawen, after our meritorious general, Araktschejef. At noon, the observed latitude was $8^{\circ} 35' 40''$, longitude by the chronometers, $189^{\circ} 3' 40''$. At the same time, a large island, called by the natives Pigen, which forms the N.W. point of the cluster of Aur, was descried from the mast-head. At two o'clock we were under the wind, east of it, shaping our course in smooth water, within a small distance of the reef, in order to discover a passage. We had scarcely sailed a mile, when we found one of about fifty fathoms wide, but taking a direction which made it difficult to go through. Notwithstanding this, the desire of examining it prevailed: we hoisted all our sails, and happily slipped through it. Some coral-reefs, which we had not noticed earlier, we avoided by manœuvring, and soon obtained a full view of the cluster, which seemed to us the smallest of all in

this region. We approached the island, which forms the S. E. point of the cluster, and is called Aur; and at five o'clock P.M. cast anchor under its protection. In the middle of the basin, we found the depth between twenty-three and twenty-five fathoms, with a bottom of live coral; in our anchorage the depth was eighteen fathoms, although only fifty fathoms from shore. We had scarcely come to anchor, when four large boats started from Aur, and approached us within fifty fathoms, where they stopped; the people looking at us with great attention. When addressed in their own language, however, they lost all fear; some even came upon deck, where their astonishment was like that of all other savages. Our acquaintances at Otdia and Cawen, whom we mentioned to them by name, assisted us in gaining their confidence; and two chiefs, who were much tattooed, and seemed to rank very high, came on-board, only on hearing this account. Upon the whole, we found the natives of Cawen bolder than those of this place. We noticed two savages who were differently tattooed, and spoke a different language; on inquiring whether they were of these islands, they answered us in the negative, relating to us at the same time a long tale, which, however, we could not comprehend. I gave some iron to one of these men, about thirty years of age, of a middling size, and pleasant countenance. He received it gratefully, but not with so much enthusiasm as the other savages. He especially attached himself to me, and when the evening came on, he took me aside and told me, that he wished to stay with me, and never to leave me. I doubted whether he would stay above a day, yet granted his request. He immediately turned to his waiting companions, told them his resolution of staying on-board the vessel, and divided the iron, which we had given to him, among the chiefs. The astonished natives tried in vain to persuade him to alter his resolution; even the eloquence of his friend Edock was lost upon him, he remained immovable, and, when the latter at last attempted to drag him by force, Kadu repulsed him, and the boats rowed off. I now began to think that he only remained with the intention of robbing us in the night, and then to abscond; I therefore had the watch doubled, and made him lay down beside me, upon deck, where I slept on account of the heat. Kadu felt himself honoured to have his bed made by the side of the *tamon*, but he was somewhat depressed, notwithstanding our endeavours to raise his spirits; he ate what was placed before him, and laid down quietly. The following is the summary of his history, which he communicated to us by degrees. He was born on the island of Ulle, belonging to the Carolines, which must be at least 1500 English miles west of



C. G. 1842

this group, and is only known by name on the chart. He left Ulle with Edock and two other savages, in a sailing-boat, with the intent of fishing, on the coast of a distant island; a violent storm threw them out of their course, and, after eight months' chance-navigation, during which time they scantily supported themselves with fish, which they occasionally caught, they arrived in a wretched condition on the island of Aur. The most remarkable circumstance of their navigation is, that it was accomplished against the N.E. trade-wind, and must be particularly interesting to those who hitherto thought that the population of the South-sea Islands took place from W. to E. By Kadu's account, they had during the whole voyage hoisted their sails as often as the wind would allow, tacking against the N.E. trade-wind, as they always imagined they were under the wind of their own island; which explains how they finally got to Aur.

They calculated their time by making a knot in a line, at every new moon. They suffered more from thirst than from hunger, for, although at every fall of rain they never missed making a small provision of water, they were often entirely without sweet water. Kadu, as the best diver, was frequently sent down to the bottom of the sea, where the water is known to be less brackish, from which he brought up water in a cocoa-nut shell, with only a very small hole in it; although this quenched their thirst for the moment, it probably produced their complete inanition. When they beheld Aur, it afforded them no pleasure, every feeling in them being blunted. Their sails had been destroyed some time, and, giving up to the mercy of the wind and waves, they quietly awaited death, when the inhabitants of Aur came to their assistance, and brought them on shore, in a dying state. Their preservers, however, tempted by the iron and other utensils which they had with them, were about to sacrifice them to their avarice, when Tigedien, the tamon of Aur, came up just in time to save their lives. When Kadu, afterwards, offered all his property to his preserver, the latter had the generosity to refuse it: he only took a trifle, at the same time threatening his people with the punishment of death, if any one should attempt to do any injury to the strangers. Kadu with his companions went to live with Tigedien, who treated him with paternal fondness. By his calculation they must have been here between three and four years. Kadu was in the wood, when the *Rurick* arrived, and was quickly sent for, (being generally considered as a sensible and experienced man,) in order that he might explain this singular appearance. He had often told the natives, of ships that had been in Ulle, during his

absence, of which, however, *he* had been told, and he even mentioned the names of two persons, Lewis and Marmol, who came from the large island of Britain; and thus he also knew our ship. Having a great predilection for white people, he persuaded the natives to go on-board, which they at first refused, there being a tradition among them, that white people eat the blacks. How they had imbibed this opinion we could not discover, since, besides an old tradition, that, from time immemorial, a large ship had sailed by Cawen, they had no other idea of European ships except what Kadu had communicated to them. His promise to purchase iron for them, at last induced them to go on-board, where Kadu had stayed. The precautions which we had used with him during the night were unnecessary; he slept peaceably, and rose, at day-break, happy and well-pleased.

On the 24th, we sailed to the island of Stabual, which is eight miles from Aur, and forms the N.E. point, as we found the coral-bottom on our present anchorage dangerous for our cables. We found the eastern part of the chain comparatively populous; met with no shallows; and at ten o'clock reached Stabual, where we cast anchor in a depth of eight fathoms, upon fine coral-sand. To judge by the number of huts and boats, this island is well inhabited; the cluster of Cawen was visible from the mast-head. Five boats, which had followed us from Aur, carrying among the rest three *tamons*, Tiuraur, Lebeuliet, and Tigatedien, now came beside us. Kadu, dressed in a yellow cloak and red apron, strutted about the vessel without taking any notice of his companions, who stared at him from their boats, and could not understand how the change had taken place in him. They called him by his name, in vain; he would not grant them a look, yet he always knew how to turn in a manner to show his dress to the best advantage. I told him to invite the three *tamons* to come on-board, for I could not venture to admit all their companions, on account of their number; he felt himself highly honoured, and with great dignity, he led Tigatedien upon deck, whom he introduced as the first chief. This old man, had a snow-white beard and hair, and a venerable countenance; but his tall, robust body, was bent with age. He presented me with some rolls of *mogan*, and, while I conversed with him, Kadu also introduced the other chiefs, who were likewise very old men. The dress of the *tamons* differed very little from that of the others; they were only more tattooed, and wore ornaments of fish-bone round their necks, which are considered as orders among them. Kadu led our guests about the deck, and explained every object, with a confidence which made it appear as if he knew

them himself perfectly well; he was very loquacious about trifles, and usually made them laugh. When they saw a sailor taking a pinch of snuff, they asked him for an explanation; he was not in the least embarrassed, although he had never seen it before himself; he took the box, and told them so much about it, as made them listen with great attention; but when, in order to make the point perfectly clear, he applied the snuff near his nose, he threw the box afar off, and began sneezing and screaming in a manner, which frightened his auditors. However, he soon recovered himself, and dexterously turned the adventure into a joke. His explanations of the guns showed that he was acquainted with them; for he told them that, if the islanders endeavoured to steal any thing, all their fruit-trees would be battered down by them, telling them that Lewis and Marmol, when the natives of Ulle had stolen something from their ship, did not leave off shooting down their trees, till the booty was restored. The *tamons* now again endeavoured to make him renounce his resolution of staying with us; but he only shook his head, embraced me, and said: "I will stay with thee, wherever thou goest!" We were informed that there was another *tamon* here, named Lamary, who held all the islands from Aur to Bigar, under his dominion, but who was now gone on a voyage to collect an army, with which he intended to attack Mediuro, a cluster of islands south of Aur. The inhabitants of that group frequently attack the other islands, for the purpose of plundering them of their provisions, which they are in want of, on account of their redundant population. Lamary now meditated punishing them for an attack upon his islands, in which one of his men had been killed. The greatest ravages, by Kadu's account, were committed in Otdia, where every thing which could not be carried away were destroyed. This at once explained why all the trees we had seen there, had been newly planted. The people did not seem to us adapted for war, in which opinion we were confirmed, by their short wretched lances. We were told, that even their women go to war, carrying baskets with stones, which, as they form the rear-guard, they throw over the heads of their combatants, into the enemy's ranks; they also assist the wounded, and Kadu, who had been with these people in several wars, assured us that the women were found of great utility. Tigidien was appointed regent in Lamary's absence, and was treated by the people with marked respect. Lebeuliet, the second in rank after him, is the owner of the cluster of Cawen, but in time of peace he lives in Airick, with the young *tamon* and the amiable princess, his children. Tiuraur, the youngest of them, possesses

the cluster of Otdia, and is Rarick's father. The *tamons* went on shore, whither they invited me to follow them. As Kadu wished to accompany them, I permitted it, having no doubt that, fickle as all other South-sea islanders, he would never return; they carried him off in triumph. All the boats followed that of Tighedien, in which, elevated through our favour, he now occupied the *tamon's* seat. I went on shore in the afternoon, where I took a walk, accompanied by the stoutest of the *tamons*, Tiuraur. The isle of Stobual is one mile and a half long, and a quarter broad; some considerable hills are formed here of most beautiful mould; the palm and bread-fruit trees grow exceedingly large, and I even found a new plantation of banana-trees. We also saw more taro here than in any other part of the islands, and we had some brought to us daily; the roots are smaller than those in the Sandwich Islands, which is probably owing to the want of moisture, although the natives assured us that they would thrive very well, if they were not so often destroyed by the people of Mediuro. In Lebeuliet's residence I found a considerable number of men and women, surrounding Kadu, to whom they were attracted by his new dress. But I was much astonished, when I found him making a speech, at which his auditors were melting into tears; an old woman sobbed aloud, Tighedien's eyes were streaming, and he himself could scarcely conceal his own emotion: he often named Aur, Ulle, and Totabu; I was not sufficiently master of the language to understand his speech, yet I guessed by it that he was taking leave of the natives. As far as I could understand, he first spoke of the sufferings he had endured on his voyage from Ulle to Aur; he then described the kind reception he had met with from Tighedien, and concluded by saying, that he hoped to see his native-country again by going with me. When Tighedien began to speak, Kadu shed a profusion of tears; the people were moved, and a hearty embrace of Tighedien and Kadu concluded this affecting scene. Kadu followed us on-board, and, as his determination of remaining with us seemed to be immoveably fixed, he was received into the cabin, in the officer's company, which flattered him very much, as he well perceived the distinction between us and the sailors, and thought that he was now one of the *tamons* of the ship. He boarded with us, and learned very easily the use of knives and forks, and, upon the whole, behaved as genteelly and modestly as if he had always frequented respectable company. He soon formed an affection for all our gentlemen, and they, in return, esteemed him for his good qualities.

On the 26th, we were during the whole day surrounded by natives, who, knowing that it was our intention to leave the

next day, came in their canoes to exchange cocoa-nuts for iron. In the afternoon the *tamons* brought us considerable presents of mogan and cocoa-nuts. When I was alone with our guests in the cabin, they looked carefully about them, to ascertain whether any one was listening, and then begged me mysteriously, but urgently, to stop here till their army was assembled; then to assist them in killing all the inhabitants of Mediuro, and afterwards to return to Aur, loaded with cocoa-nuts and bread-fruit; for this service they would give me an *eb* every day. I was sorry that the advance of the season did not allow me to assist these poor islanders against their enemies; perhaps to protect them for ever against their attacks, by my mere appearance. To compensate for our refusal, I gave them some of my lances and short arms, which made them exceedingly happy. Every thing was shown to the people in the boats, who broke out in a unanimous "Oh!" Tiuraur danced, and sung a warlike song, showing us at the same time how he would now dash down his enemies; the people roared with joy, and, if the enemy had then appeared, they would have certainly proved victorious. The *tamons* now left us; Edock, Cadu's friend, only stayed, to make a last attempt to deter him from going with us, but all was in vain; what he had received from us, he gave to his friend, and wept bitterly, when at last he tore himself away from him. Edock was better versed in the geography of the Carolines, which he had visited; and, from the accounts which I received from him, I drew a chart, which accompanies this work. However imperfect it may be, it perhaps may be of use to some future navigator, since I had already discovered three clusters of islands through Lagediack's information. The distances between the cluster of islands, which, by Edock's account, are of the same construction as those just examined by us, I have marked with numbers, pointing out the days' voyages from one cluster to another; the single islands are only marked by a ring. Jethin, Feis, Pelli, and Jap, are said to consist of high land, and all the others of low land. Jap and Pelli, probably Wilson's Pelloes Islands, are marked on every chart. On inquiring of Edock about the situation of Ulle, he pointed to the east; an error, which proves that these men were driven from their island by an easterly wind, and were forced further by a S.W. monsoon, which reigns about there; but, still imagining that they were west of Ulle, they continued tacking towards the east, when they had reached the trade-wind. Edock told me that another boat, with five men, had landed on the cluster of Arno, a day's voyage S.W. from here. They were natives of the group Lamureck, at a small distance from Ulle. When, a short time since, the natives of

Arno ventured an attack upon these islands, Kadu and Edock recognized the natives of Lamureck, with whom they had formerly been acquainted, and, instead of fighting, they looked out for a solitary spot, where they related their misfortunes to each other. The names of the five Lamureckans are, Guidal, Pignedu, Uderick, Katulgi, and Udeben; one of the clusters of Radack is named Uderick, and, from the similarity of names, we might conclude that boats from the Carolines are frequently stranded here. I went on shore in the afternoon, where I was well received by the natives. A flotilla was fitting out, probably against Mediuro; two boats, the largest which I saw here, were thirty-eight feet long. Mr. Chamisso spent this night in the *tamon's* house, where he had been promised to be tattooed; he, however, waited in vain.

Notwithstanding the high wind, two large boats arrived from Airick, of the cluster Cawen, a proof that they can weather a tolerably high sea. At sun-set the natives accompanied us to our boats, which they had filled with cocoa-nuts, so that we scarcely had any room to sit down. I made them various presents, and we parted in the best terms.

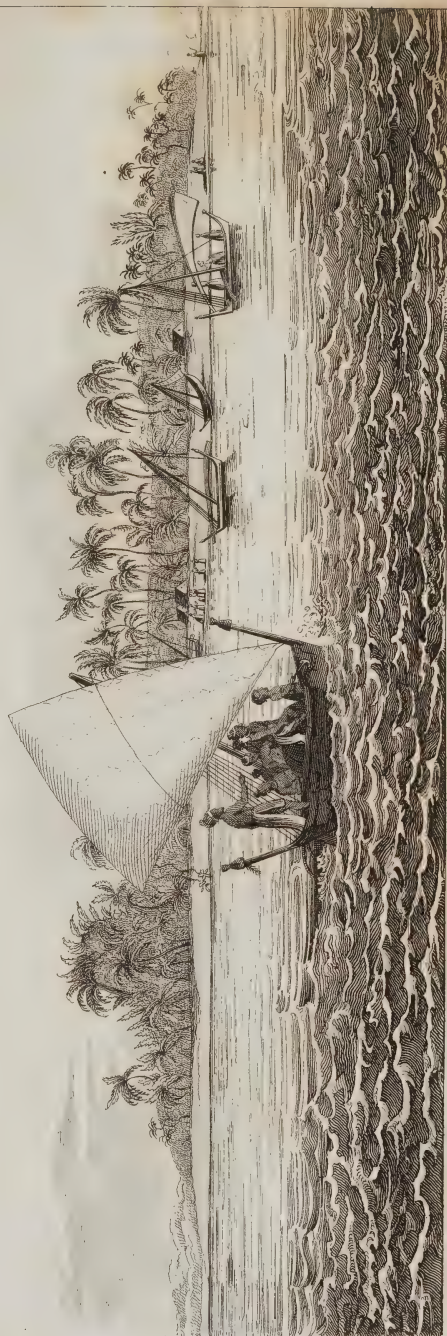
The latitude of our anchorage we found, from

the mean of three observations,-----	8° 18' 42"	
Observed longitude-----	188 48	E.
Longitude, by the chronometers,-----	188 51 46	
Variation of the needle-----	11 58 30	E.

The cluster of Aur, in its greatest length from N.W. to S.E. is thirteen miles, and its breadth six miles; in the whole we counted thirty-two islands. I named the group after our president of the navy, *Traversey*. As my time did not permit me to visit the clusters, Arno, Mediuro, and Mille, I could only place them on my chart according to the directions given to me by the natives; the distances are calculated by the day's voyages. The population of the cluster Aur, which we calculated to be between 3 and 400, is small, when compared to its extent, yet extensive in comparison to that of the other clusters.

On the 27th, we sailed from Aur at day-break; during the whole night we heard the drums, and the singing of the natives, which noise was doubled when we hoisted the sails, and Kadu was of opinion that it was done to wish us a prosperous voyage. At seven o'clock we again sailed through the passage by which we had entered. At noon, we saw Cawen four miles from us in the east; we then doubled the cluster Otdia over the wind, and tacked through the night with little sail.

On the 28th, we had fine weather, and by our ship's account ought to have been within sight of Otdia, but, as no land could



*View of the Island Birnie, belonging to the
Group Caven, in Gadack.*

be seen even from the mast-head, we found that we had been deceived in our account by the current, which had taken us during the night sixteen miles to the N.W. 11° . In order to obtain sight of Otdia, after which I wished to determine my position on the chart, I steered straight to west; and, after a few hours' sailing, we recognized the Isle of Ormed, at a distance of seven miles in the south. From here I steered N.W. in the hope of falling in with the cluster Ailu. By a good observation, taken at noon, we found our latitude $9^{\circ} 51' 29''$, the longitude by the chronometers $189^{\circ} 56' 00''$. On calculating it by the Isle of Ormed, we only found one minute difference, an agreement which not only proved the correctness of the chronometers, but also the exactness of our determination of Aur, and which gave me more pleasure than a new discovery. Kadu, to whom we had given a shirt and a light sailor's jacket, was in excellent humour, till the motion of the ship made him seasick and melancholy, but with the recovery of his health he also regained his spirits, and did not seem to miss his friends. At three o'clock three low islands were seen in the north, which Cadu recognized as belonging to Ailu; in his opinion the small island of Temo lay S.W. and Ligiep farther west. We tacked during the night.

On the 1st of March, at day-break, we found ourselves under the wind of the Isle of Ailu, which gives the name to the cluster, and forms the south point of it. The whole length of the island was scarcely a mile, and its breadth a quarter of a mile; high palm-trees distinguished it from the rest. On doubling it, we saw columns of smoke rising, and people walking in different parts; we now pursued the south side of the group, consisting only of coral-reefs, and, when we had doubled this, we were in smooth water. We now continued our course northward, near the reef, in the hope of finding an opening. We soon saw three boats coming through the reefs, but found the passage too narrow to pass. Two boats came so near that Kadu could enter into conversation with them; they would not come on-board, but they pointed out a passage to the north, which they thought broad enough to let our ship go through. We soon found three passages, two of which were deep enough, but only four fathoms wide; the third was from fifty to sixty fathoms wide, but it was too late to examine it this evening. We now had had a view of the whole cluster, which was fifteen miles long and five broad; the east side of it was formed by a chain of islands, and the west side consisted of a coral-reef.

March 2d.—During the night the current had driven us eight miles to the west, nevertheless we reached the passage at eight o'clock. The wind blew from it, and we waited for the setting-

in of the current. Lieutenant Schischmareff found the passage only fifty fathoms wide, but perfectly without danger, as the reefs on both sides rose perpendicularly from the bottom. I hoisted all our sails, so that, if in the passage there should be a necessity of turning the vessel against the wind, she might keep on her rapidity till she should be out of all danger; the attempt, however, would not have succeeded without the current. We caught a fish of the species of the mackarel, by a hook dragging behind the ship. The wind would have permitted us to have taken a straight course to the Isle of Ailu, had there not been so many coral-reefs in our way, which we had to avoid. We had not as yet met with so many shallows in any of the clusters, nevertheless we came to a convenient anchorage near this island at noon. Here we were approached by three boats, and Kadu placed himself upon deck in a manner that he might be seen from head to foot, in his new dress. He called out to the people, condescendingly, that he was Kadu, that they need not be afraid, and might come on-board; they at last came, and after he had given them time to examine his dress, he also explained to them the other objects, and thought it quite natural that they should behave as submissively to him as if he were a great *tamon*. Afterwards he had even the condescension to go with them on-shore, taking, without ceremony, the place of honour in one of the canoes; and the good savages, without thinking that but a few days ago he had been a commoner like themselves, carried him through the water on their shoulders, singing and shouting at the same time; an obsequiousness which he probably increased by the gift of a few old nails which he had taken with him. When he had reached the shore he sat down gravely; they all surrounded him standing, and he told them of his great experience and adventures. We went on-shore in the afternoon, where we observed that this cluster must have risen later than the others; it had but little mould, and was therefore comparatively unproductive in fruit; the bread-fruit tree we entirely missed; the pandanus-tree, which abounds in the other islands, is carefully cultivated; fowls, which are kept tied with strings to the houses, as house-dogs with us, are more frequent, but their flesh is not eaten; the natives only using their feathers for ornament. The long feathers of the tropic bird, which are but rarely found, are here considered as the most precious ornaments. We were told that Lamary had lately sailed from hence to Udirick, for the purpose of collecting some forces there; also that Langemui, who had stayed as the chief of this cluster, was on the Isle of Capeniur, on the northern point. Udirick, the natives said, lay a day's voyage from here, straight to the north, and I had no doubt that

they were the Kutusoff and Suwaroff Islands, which we discovered last year. Kadu returned with us on-board; the natives also accompanied us in their canoes, filled with cocoa-nuts, which they offered us, without asking any thing in return. Considering the little fruit they had, I was touched by their generosity, and made them several presents of iron. By a good observation, we found the latitude of our anchorage $10^{\circ} 13' 7''$, longitude by the chronometers $188^{\circ} 58' 33''$.

On the 4th of March we set sail at day-break for Capenuir, which, owing to the many coral-reefs we found in our way, we only reached at nine o'clock in the evening. We anchored within fifty fathoms of the island, where we lay protected against the wind; and I resolved to remain a few days in order to put our ship in a state fit to encounter the stormy ocean, which we were soon to enter. The greatest depth in the whole cluster was twenty fathoms, and where we lay it was only six fathoms; the bottom was formed of white clay, which we had not met with in any of the clusters. We were visited by Langemui, who came to lay some cocoa-nuts at my feet. He was a man of about eighty, thin, and his hair grey, but he possessed all the vivacity of youth. I paid him my visit in the afternoon, and met with a very friendly reception by his family, who put several questions to Kadu respecting the ship. I perceived several scars in Langemui's arm, and asked him on what occasion he had received them. He pointed to the west, and telling me that a long time since he visited the natives of Ralick, where he had received the wounds, he became so infuriated, that he took up a lance and threw it against a tree at a distance of fifteen paces, with such force that it remained fixed in it, at the same time exclaiming, *Mani mamuan Ralick!* (kill the people of Ralick). I now saw that these lances, of which I had entertained so bad an opinion, were mortal even at twenty paces. I afterwards inquired of him, by means of Kadu, who was already accustomed to my pronunciation, what he meant by Ralick, and I was informed that the chain of islands, already known to us, from Bigar, in the north, to Mille, in the south, is called by the natives Radack, as I also shall name it in future. West of the chain of Radack, another runs parallel with it, consisting of nine large clusters and three single islands, which is very populous, and bears the name of Ralick. The old chief explained himself by denoting the chains on an extended carpet with stones. As his account of the clusters of Radack (as far as we knew them) was correct, his account of Ralick also deserves confidence. After he had repeated the names of the clusters several times, he shewed us the route to them in the following ingenious way: a stone in his

hand represented the boat; with this he sailed at sun-rise from Ailu, taking a S.W. course, and reached the Isle of Temo at noon; and afterwards, without stopping, the cluster of Legiep. From Legiep he started in the morning, taking a western course, and, after having sailed two days and two nights, he arrived on the cluster of Cwadelen, belonging to Ralick. At the time he received his wounds, the two chains of islands were carrying on a violent war against each other, but they are now in a friendly league. Kadu told us that it was the *tamon Tiuraur* who went to Ralick, where he exchanged names with the chief, and concluded the peace between the two chains. The chain of Ralick has two rulers,—Lagadack-nanait and Labondugin; the former is called *erud ellip* (great chief). The word *tamon*, by which the chiefs in the Carolines are named, had only been introduced here by Kadu; the name they give them being *erud*. The natives of both chains were said to be the same in language and habits, and the cluster of Otdia was reported to be the largest and most populous in the chain of Ralick. Langemui told me that it might be reached in a day and a half; thus the distance would be sixty miles, as the day's voyage among the savages is seldom above forty miles; from Ralick to Radack they go slower, as they have then to tack against the trade-wind. Langemui also told me, that a long time ago, a ship with white people was at Otdia, from which the natives purchased iron, and that on the northern cluster, Bigini, likewise belonging to this group, a large ship had been seen sailing by. From this may be inferred that the chain of Radack, with the exception of a few clusters, is perfectly unknown, and that Ralick may be considered as the Mulgrave's Islands, with which we are as little acquainted. The chart of the chain of Ralick, which will be found in my atlas, I sketched from Langemui's account. The isle of Capeniur, only a quarter of a mile in circumference, is but little advanced in vegetation, and its population seemed but thin; perhaps, however, most of them had followed Lamary to Udirick. I had our linen washed here in one of the cisterns, and the natives kindly assisted the sailors, who were daily sent on land for this purpose; Kadu insisted upon washing his own linen himself. I visited on this island a chief, who, by his appearance, seemed to be far above a hundred years old; snow-white woolly hair covered his head and chin, his thin wrinkled body had scarcely a human appearance, yet he also enjoyed the privilege of these islanders, his mind being cheerful and unimpaired. I found it very extraordinary that, with such excellent health, the population should be so small, till Kadu gave me an explanation; on account of the scarcity of provisions, they have in practice an

inhuman law, that a mother is not to bring up more than three children, and that all the others must be killed. The salubrity of the climate we experienced ourselves, since, notwithstanding our want of fresh provisions, our state of health had never been better. Up to the 6th of March we enjoyed here the finest weather, by a moderate E.N.E. wind; during the night we had the unusual occurrence of a calm, and on the 7th the N.E. trade-wind shifted, for the first time during our stay in Radack, to N.W. and W. At the same time it rained violently till sunset; on the following morning the wind again blew from N.E.; and the sun shone bright. Except the daily oscillations, we had observed no variation in the barometer, but, during the westerly wind, it fell four lines.

On the 9th and 10th we could do no work on the ship, on account of the violence of the rain, and therefore made every exertion to complete the repairs on the 11th, while the weather was fine. According to observation, which was confirmed by Kadu, the N.E. by N. wind is the most prevalent in Radack, yet, in the months of September and October, he said the wind blew sometimes from S.W., often changing to a hurricane, which tears up cocoa-nut and bread-fruit trees, lays waste islands on the western part of the group, which sometimes are swallowed up by the waves. The natives look to this season with awe, as it often destroys their bread-fruit harvest, which takes place during this time, and only once in the year; for, although fruit may be seen on these trees during the whole year, they are the fullest in these dangerous months. Langemui brought to us to-day a young chief of the Isle of *Miadi*, which in his opinion now lay east of us, and no doubt was our New-year's Island, which, by our calculation, lay fifty-six miles east of us. This young man had been overtaken by the storm in a small fishing-boat, only capable of carrying one person, and, after a few days, he was thrown on this cluster. He was tattooed all over his body, very respectful in his behaviour, and exceedingly inquisitive. He intended to wait here for Lamy's return, who was also to go to *Miadi* to gather troops on that island, whither he thought of accompanying him. It is astonishing how these savages can steer against the N.E. trade-wind for a point like *Miadi*, which is fifty-six miles off, and which they can scarcely see at that distance. As they only tack, they are two days and one night on their voyage, without any other means of calculating their route than the stars, (which they only see with their naked eyes,) a skill which Europeans do not possess. Langemui felt very sorry when he heard that we were to leave him on the next day, and immediately dispatched some people to gather cocoa-nuts, and

others to fish; during the whole night we saw people with fires on the reefs, by which means they draw the fish, and then spear them.

On the 13th, at day-break, our old friend brought us his present of cocoa-nuts and fish, and soon after we weighed anchor. The old man stood a long time in his boat, bidding farewell to us with both his hands. I named the cluster of Ailu *Krusenstern*. At seven o'clock we came to a passage more to the north, through which I sailed, although it was only thirty fathoms wide, as the wind favoured us. From hence I took my course N. by W. towards the cluster of Udirick.

The mean of several observations for the lati-

tude of our last anchorage was ----- 10° 17' 25" N.

The mean of many observations between the

sun and moon was ----- 190 00 40 W.

Variation of the needle ----- 11 15½ E.

The mean of our observations gave for the time of high water in full and new moon 4 h. 53 m., the greatest difference in the height of the water amounted to eight feet.

At three o'clock in the afternoon Udirick was seen to the north, and we soon distinguished the two clusters of Kutusoff and Suwaroff, as well as the channel which parts them, and through which we sailed last year. As it began to get dark we tacked with but few sails.

On the 13th we observed at day-break that the current had carried us during the night eight miles to S.W. 4°, and we now took our course to the strait which is formed by Udirick in the north, and Togai in the south. At eight o'clock we passed it, and were under the wind of the Suwaroff islands: as I found no passage broad and deep enough to penetrate among them, I resolved to keep here a day under sail, in order to speak to Lamary. Four canoes soon made their appearance, in one of which was the chief; they were just beginning to repeat the ceremony of last year, when, to their astonishment, they recognized Kadu among us. Lamary staid only a short time with us on-board, his people being afraid that we might carry him away with us. He was less distinguished from the other islanders by his dress than in his tall robust figure; his countenance betrayed sense, and the left eye being a little smaller than the right gave him a knowing look. Kadu told me afterwards that Lamary, now about thirty years old, was born in Arno, from whence, a few years ago, he came to Aur, killed the chief without ceremony, and assumed the dominion; from thence he went with his adherents to Cawen, and so on to the north as far as Udirick; he killed the first chiefs every where, and now reigned over the whole chain from Radack to Aur. It is wor-

thy of notice that, in ancient times, the Isle of Sumatra was known to the Arabs by the name of Lamary; I should have supposed that the population of the Carolines, as well as of these groups, had its origin in the Philippine islands, particularly as these nations resemble each other. After I had made some presents to Lamary, he took an artificially-wrought fish-bone, which is worn here as a mark of distinction, from his neck, and immediately left the ship; the other islanders, however, stayed to listen to Kadu's narrative. I was informed by them that the northernmost cluster of Ralick, Bigini, lay due east from here; this is, perhaps, the same which is known on the chart under the name of Pescadores, and has only been seen once; they pointed to the Isle of Bigar in N.N.E., and told me that Lamary would soon go there to catch turtle, the flesh of which was to be preserved against the intended war. We were visited by two of Kadu's companions in misfortune, who had come hither with Lamary; one of them, an old man, to whom Kadu was very much attached, he had made up his mind to take with us, without telling me a word on the subject. The old man became quite furious, when I refused it. He spoke ill of Kadu, and begged me vehemently to take him with me instead of the other. I should willingly have acceded to his wish, had not I been almost certain that the difficulties of a long voyage would have caused his death. Kadu begged to accompany the natives on-shore, and Mr. Chamisso also went with them, in order to examine the islands more closely. The old Caroline islander could only be removed by force. After a few hours the naturalist and Kadu returned, accompanied by some boats laden with cocoa-nuts. They were not able to land, the passage being too narrow, a contrary wind blowing from inside the basin, and outside the surf being impassable; Kadu, however, swam through it with the other natives, whilst Mr. Chamisso waited for their return in the boat. I again represented to Kadu that the last moment had now arrived, when he might yet change his intention; that we should never return to Radack, that he had no prospect of returning to Ulle, and that he had to expect a long and troublesome voyage; but he embraced me with both his hands, promised to stay with me till death; and I therefore had no alternative but to keep him. He now quickly distributed his treasures, and we left Udirick.

On the 14th, after having endeavoured through the night to gain the wind towards the east, we found, by a good observation at noon, which gave for the latitude $11^{\circ} 50' 57''$, and the longitude, by the chronometers, $190^{\circ} 26' 32''$, that since yesterday the current had carried us twenty-six miles due west; so that we had not gained any thing towards the east, but actually

had lost. The same current, which seems to be peculiar to this place, and for which I could discover no cause, I also perceived last year, and it now prevented me from reaching Bigar. The weather was fine, and the wind blew moderately from E.N.E. We saw several species of maritime birds, which indicated the proximity of an uninhabited island.

On the 15th we again made an unsuccessful attempt to reach Bigar; the current drove us a second time twenty miles west, and, seeing the impossibility of reaching this cluster, I took my course for Unalaska. As the islands discovered by the frigate *Cornwallis* lay in my route, I resolved to take a view of them. Kadu told me that Bigar also forms a circle, which is almost entirely formed of reefs, there being but two small islands, with a third in the middle of the basin, all of them scantily covered with mould, and over-grown with low bushes; there are some small straits under the wind of the island, for boats, which go there for the purpose of catching turtle and birds. Perhaps, if I could have reached them, I might have obtained some information respecting the religion of the people of Radack, since they say that the island is inhabited by a blind god, with his two sons; but, as the former has taken the turtle and birds under his particular protection, the savages have invented the stratagem of assuming the sons' names as long as they are on the island; by which the old man is happily deceived, and throws no obstacle in their way. In the mean time they endeavour to entice the sons by flattering songs, even while they are on their voyage; their first request is that they may suffer no want of rain-water as long as they are there. They also believe that the sharks near Bigar eat no human beings.

March the 18th.—The current took us daily from ten to twelve miles west, and I was obliged to steer a complete northern course, as I did not wish to miss the Cornwallis Islands. At noon, by our observation, we found the longitude $198^{\circ} 38' 45''$, the latitude $13^{\circ} 45' 11''$. The islands could therefore not be far off, as was likewise indicated by numbers of sea-birds, which, after having fluttered round us the whole of the day, in the evening all flew in one direction, and Kadu, who did not suspect any land here, suddenly exclaimed, pointing at the birds, "There must be land! the birds fly to their young ones, and by that we find an island when we have lost it." From this it may be seen that La Perouse was wrong in maintaining the contrary, as even the savages have made the observation, and, in the evening, they take the birds for their guides.

On the 19th, at seven o'clock A. M., we saw land to the north, straight before us; according to Arrowsmith's Chart it

must have been much more eastward. At eight o'clock we distinctly descried several islands, covered with low shrubs, only visible within five or six miles, and which might therefore prove more dangerous to ships than the clusters we had just left, as they are at least covered with high trees, and give a timely warning. At noon we had doubled the south point of the small cluster and were under the wind of it, in smooth water, where we had a full view of the whole. A coral reef here forms, also, a circle, the eastern side of which only consists of islands. Neither the size nor the geographical situation of this cluster in Arrowsmith's Chart tallied with our observation. The frigate Cornwallis states the extent of the cluster from north to south to be thirty miles, whilst we, on the other hand, only found it thirteen miles and a half; we also differ in our longitudes. By our observation the cluster lies in $191^{\circ} 00' 25''$, consequently twenty minutes farther west than it is fixed by the English frigate; the latitudes agree tolerably well. At noon, being near the south point of the cluster, we found the latitude $14^{\circ} 39' 29''$. We approached the reef under the wind till within two hundred fathoms, but our boat could find no opening to penetrate inside the basin; but, to judge by the bright colour of the water in it, the depth of the basin was very shallow, and probably the cluster will soon form one island. An enormous shark here swallowed an iron hook as thick as a finger, but he was so large and heavy that it broke in the middle when we endeavoured to pull him up. On leaving the islands, we steered, as far as the wind would allow, north, in order to reach, in latitude 30° , the same spot where the year before we had seen indications of land.

On the 21st, at noon, we were in latitude $17^{\circ} 56'$, longitude $193^{\circ} 23'$. At sun-set we saw several sea-birds taking their flight towards N.E. probably to Waker's Island, which must be in this direction. We could not reach it, on account of the northerly wind.

On the 23d, in lat. $20^{\circ} 15'$, long. $195^{\circ} 5'$, we suddenly lost the trade-wind, after some strong gusts from all points of the compass, attended with rain, and the wind began to blow from the south. In this latitude we were surprised by the sight of an albatross.

On the 19th, in latitude $31^{\circ} 39'$, long. $189^{\circ} 52'$, we in vain looked out for land, and I now made straight for Unalaska.

On the 1st and 2d of April we found the current so strong, that on the 1st it carried us thirty-six miles to S.W. 23° , and on the 2d thirty-six miles and three-quarters S.E. 18° ; at the same time the sea ran high from the S. which greatly broke the current in that direction. The temperature of the air had

fallen from 84 Fahren. of warmth, ten degrees lower, and we felt chilly.

On the 3d, in lat. $34^{\circ} 27'$ long. $193^{\circ} 47'$, we still found the current thirty-four miles to S.W. 81° ; at the same time the wind was low, and we saw the water on the surface rippling, an effect which is produced by the current. So strong a current far from land is a remarkable occurrence; there may therefore be some unknown land about here. In the morning, a singular animal, which seemed to have but little motion, swam near the ship. The sea being calm, I had a boat lowered; the sailors rowed up close to it, and the spear recoiled from it twice, as from a wall; the third time it penetrated, and the creature was dragged upon deck. Our naturalists immediately recognized it as a fish, known in natural history by the name of the *swimming head*. This singular fish consists only of a head, six feet long, and of an oval shape, with a very small mouth; it probably feeds upon *moluscs*, which it sucks from the surface of the sea; the external part of the fish consists of a gristle, covered by a rough skin. The flesh is something between fish and lobster, which we considered as a dainty, not having eaten any fresh provision for some time, and, as it was of considerable weight, it served our crew for several days. We found this day a dead albatross, which measured, with its wings extended, seven feet. I profited by a moment of calm, to make some observations with Six's thermometer, and obtained the following results:

The temperature of the air after Fahrenheit-----	$60^{\circ} 00'$
On the surface of the water-----	$58 \quad 30$
In the depth of 250 fathoms-----	$48 \quad 50$
Transparency of the water six fathoms.	

On the 5th, in lat. $35^{\circ} 35'$, long. $191^{\circ} 49'$, we found that the current had carried us within two days, fifty-two miles and three-quarters S.W. 34° . We saw one land-bird and several kinds of sea-birds, and sailed by two bamboo-canes and other pieces of wood, all proofs of being near land; still the hope of discovering it remained unaccomplished. We killed another swimming head, and found that at night its flesh shone like phosphorus. We began to be assailed by storms, which are here usual in spring.

The 13th of April was the terrible day which destroyed my fairest hopes. We were on this day in lat. $44^{\circ} 30'$, long. $181^{\circ} 8'$. As early as the 11th and 12th we had a violent storm with snow and hail; in the night of the 12-13, it broke out into a hurricane; the waves rose to a height which I had never witnessed before; and our ship suffered considerably. Soon after midnight the violence of the hurricane increased to such a

degree, that it tore away the tops of the waves, and carried them like a heavy rain over the surface of the ocean. Whoever has not witnessed such a scene, can form no idea of it; it seems as if the whole globe was about to be annihilated by a readful revolution. I had just relieved my lieutenant; besides myself, there were four sailors upon deck, two of whom were holding the helm; the rest of the watch I sent for the sake of security into the hold. At four o'clock in the morning, I was looking with amazement upon an immensely high wave, when it took its direction towards the *Rurick*, and in the same moment threw me down senseless. The violent pain which I felt on recovery, was forgotten at the sight of my ship, which was so shattered, that, had the hurricane continued for one hour longer, she would have been lost; as there was not a corner in her that had escaped the effect of that terrible wave. The first thing I saw, was the bow-sprit broken, and the force of the wave may be imagined, which, with one blow, would break a beam of two feet in diameter; this loss was the more considerable, as the two other masts could not long have resisted the violent rocking of the ship, after which there would have been no chance of escape. One of the sailors had his leg crushed; one mate was thrown into the sea, but saved himself by laying hold of a rope that was dragging behind the ship; the wheel was broken, the two men that held it were much hurt, and I, having been thrown with my chest against a corner, suffered great pain, and was obliged to keep my bed for several days. During the storm I had the opportunity of admiring the courage of our sailors; but no human aid could have availed, if the hurricane had not fortunately ceased. Kadu had been in great fear, for he expected that the large foamy waves would crush the poor vessel; he, however, felt very comfortable in his warm clothing, except the boots still troubled him a little. Mr. Chamisso profited by his presence, to increase his knowledge respecting Radack, and the Carolines, which he found tolerably easy, as Kadu quickly learnt the Russian language, and we improved our knowledge of his. When we left Radack, Kadu immediately began his account, by making every night a knot in a line; but after having been on sea a whole month, without seeing land, he gave up his account, convinced that we were now wandering about just as he had done, in his voyage from Ulle to Radack. When the hurricane ceased, and we had brought the ship in order as far as we could, we continued our route to Unalaska, during which we had yet many violent storms to encounter.

On the 21st, we were in great danger of being shipwrecked between Unimack and Unalaska. We were compelled by

circumstances to approach the land, which lay before us, when a gale suddenly drove us towards the coast, and we could almost calculate the hour of our destruction, when the wind happily veered round, a change very common near high land.

Kadu could not be persuaded that the high mountains covered with ice, which we saw from here, were land; as he had never seen any thing but small low islands, covered with cheerful green, it was no wonder that he did not recognize the land in these masses of ice, reaching to the clouds. I never saw him look at any thing with greater astonishment, than at the snow; and one day when he had caught some flakes, and found them quickly dissolve in his hand, he was horror struck, and thought he was in a land of enchantment.

On the 24th, with the help of a violent south wind, we penetrated through the channel, between Unalaska and Unalga, and in the night reached the harbour, just as a storm was breaking out. I would not advise any voyager to navigate these seas so early in the season; for the storms here are terrible.

On the 25th, we were visited by Mr. Kriukoff, who told us that all that I had ordered for my voyage to the north, was in hand, and that in May he expected the interpreter from the isle of Kodiak. We immediately set about unrigging the ship, which was damaged in all her parts, and wanted thorough repair. The hills round the harbour were still covered with snow, and the thermometer at noon only showed 3° warmth. During the whole time of our stay here, we had unfavourable weather, which annoyed us greatly in our work.

On the 27th, two interpreters arrived from Kodiack, who pretended to understand the language of the nations north of Aliaksa.

On the 4th of June, a dead whale was thrown on shore here, and set every one in motion; the Alioutskans crowded to the spot, and stuck to the half-putrified fish, like bees to honey; to us the stench was most intolerable. By an arrow which still stuck in the fish, they immediately knew who had killed it, and consequently, who was the proprietor. A part of such a treasure belongs to the district upon which it is thrown, and the natives may eat of it on the spot, as much as they can, and which they do for twenty-four hours without intermission. The proprietor is often involved in a quarrel with his guests, since they are not always inclined to leave him the dainty parts, i. e. those which are the most putrid. Some of the greatest delicacies in Unalaska are the fins of the seal, which are tied up in a bladder, and laid in the ground, where they remain till they are reduced to a fetid jelly.

The Alioutskans believe that the human race is descended from a dog, which fell down from heaven on the isle of Unalaska; where he brought forth the first man.

On the 29th, the ship being repaired, and every thing requisite got on-board, we left Unalaska. The sailor who had his leg broken could already limp about; but I still suffered great pain, which increased as we proceeded towards the north, nevertheless I had courage, and hoped to execute my undertaking.

Kadu, who was well in Unalaska, although the air did not perfectly agree with him, was surprised there was not one tree on the island, so that he could get neither bread-fruit nor cocoa-nuts. He seemed interested in every novelty he saw here; the life of the Alioutskans under-ground did not suit his ideas; he thought it was better living in Radack and Ulle, and he asked whether we lived in the same manner in St. Petersburg. We gave him such a fine description of that city, that he became very desirous to see it. The large oxen he beheld with astonishment and fear, and expressed great joy when he heard that the meat which was daily eaten in the ship, was of such animals. We asked him why he was so glad, and he timidly confessed that he thought we ate men, and that some day the turn might come to eat him. Soon after we left Radack, he saw the men open a cask of salt-meat; he was struck by a rib-piece; he thought of the warning of his friends, not to go with us, because we ate black people; from that moment the poor fellow considered himself as ship-provision, and fearfully anticipated the moment when there might be a scarcity on-board.

Observations in Unalaska.

The mean of several observations gave for

the latitude of the village Illiuliuk-----	53° 52' 25" N.
Longitude, from a number of observations	
between the sun and moon -----	166 31 53 W.
Variation of the needle-----	19 24 00 E.
Dip of the needle -----	68 45 00

For the time of high-water, 7 hours, and 30 minutes; the greatest difference in the height of the water amounted to five feet and a half.

On the 30th of June, at five o'clock in the afternoon, we saw the Georgia Island, where, by Mr. Kriukoff's direction, I was to receive some necessary articles. It being too late to land, I tacked near the shore in the night, and, on the 1st of July took my course towards the north point, which is very low. As soon as we had doubled this point, we saw several habitations: the shores were covered by an immense number of sea-

lions, which made a terrible noise. We were met by a bay-dare with three men; one of whom, who was the Company's agent, and chief of the island, gladly offered us his services. As the island has neither a good anchorage nor harbour near, the *Rurick* was kept under sail, while I went on shore with our naturalist. The landing in this place is very inconvenient, and impossible with a brisk wind. The agent took us to his house, which lay partly above and partly under ground; a great number of warehouses for the sea-lion and seal skins lay scattered around it. This is the only inhabited spot on the island; there are twenty-five men who have been sent here, with their wives, from the Alioutskan Islands, for the purpose of killing sea-lions and sea-cats for the Company, under the direction of three of their officers. The agent, who is married to an Alioutskan woman, invited us to drink tea in his house, after which we went to the shore, where, within 200 fathoms of the habitations, the sea-lions lay in large herds. They, as well as the sea-cats, keep upon dry land during their breeding-time, and are expert in attacking any one who approaches them, while at other times the sight of a man drives them quickly into the sea. The scene which we now beheld was novel and singular; we approached them within twenty paces; the males attain the size of an ox, but the females are rather smaller. The former were engaged in an eternal strife for their mates, for they constantly endeavour to increase their number, which they can only accomplish by their bravery. The heroes are known by the number of their wives; they often lie from eight to ten close together, that their defender may be the better able to protect them; and the latter is constantly walking round them, roaring furiously, every moment expecting an attack, since the number of males seems to exceed that of the females. They fight so fiercely, that their blood and pieces of blubber are seen flying in every direction, and very frequently one of the combatants falls down dead, in which case the victor immediately enters upon the rights of the conquered, and appropriates the widowed seraglio to himself. The contest is always longest when one hero is attacked by several males at once, for, as soon as the former is subdued, the allies begin fighting among themselves, which they continue till the bravest has beaten all the others. The roaring of these animals is indescribable; during a calm on sea it may be heard at a distance of six miles; and their stench cannot long be endured. It is prudent always to keep at some distance from the lions, for, although they move but slowly on land, they sometimes take a leap of ten paces, and whatever they lay hold of is irretrievably lost. An Alioutskan, who had gone too near, had one of his arms en-

tirely bit off. Some of the females had young ones, which were lying round them. These are considered by the Alioutskans and Russian settlers as great dainties, and much sought after. The agent gave us some to take with us; for this purpose the mothers were frightened away, and the young ones driven inland, where they were killed. The cries of these young lions sound very much like the bleating of sheep; we found the taste of their flesh very palatable, but, when a year old, its taste and smell become too nauseous.

The sea-cats, which visit this island in small numbers only, (their chief haunts being on St. Paul's Island,) lay in separate groups. The male cat, (which is about the size and form of the female sea-lion,) is as large again as the female. The males have also several wives, but, although they are not under the necessity of fighting for them, they must be constantly on the watch to keep their wives, who take every opportunity of running away. Males are often found lying alone and mourning aloud for the loss of their favourites. The skin of these animals is much sought after in China, and is sold at a high price even in Russia. The American company obtain a considerable revenue from this island, and that of St. Paul. About thirty years ago sea-otters were so frequent here, that one man might kill from 2 to 500 of them in one hour; but when they found themselves so closely pursued, they all at last withdrew. At noon, we left the island, and steered our course to the isle of St. Paul's, where I hoped to get cloth for warm clothing. Georgia Island is of a moderate elevation, runs in a straight line, and seems to have been thrown up by a volcano. Although its situation is more northerly than Unalaska, the latter island is colder, owing to its high mountains. The inhabitants said that, for the last two years, they have seen a fire rising in the N.E. during the night, and are of opinion that a volcano lies in that direction. This volcano cannot be on the continent, as the distance would be too great to see it burning; if therefore it is a volcano, it must be on some unknown island.

On the 2d of July we came in sight of St. Paul's, and were immediately met by the Company's agent, who supposed our ship belonged to them, which are always laden and unladen on the open sea, there being no harbour in the island. At seven o'clock in the evening, we arrived on the south side of the island, within five miles of the Company's settlement. We were visited by some Alioutskans in their small baydares, although a thick fog partially obscured the land from our view: a present of spirits and tobacco much pleased them. The thermometer during the whole day only showed 4° of warmth.

On the 3d, early in the morning, having announced our ap-

proach, by the firing of a signal-gun, a baydare, with twenty rowers, came from the island, loaded with the articles which we had requested. The agent confirmed Mr. Kriukoff's statement, that land had been seen S.W. of this island. In order to obtain the exact direction of the place, where it had appeared to them, I went on shore, where I placed my Azimuth-compass on an eminence; but here the needle constantly turned round, an effect which was probably produced by the great quantity of iron which lies about here; for, when I changed my place, the needle soon became stationary, and the position of the pretended land was pointed out to me in S.W. $\frac{1}{2}$ W. The Company keep here about 200 Alioutskans, under four officers, who have all been sent from Unalaska. The land is much lower than Georgia Island, and we found several flowers on it; the shores are covered with sea-cats, as thickly as they are in other islands with sea-lions. The Company derives the greatest part of its revenue from the former. It was about noon when we returned on-board, and we left St. Paul's in clear weather, and with an easterly wind, taking a S.W. course, in hope of discovering the land which had been seen.

We found the latitude of Sea-otter Island, (a small island, close by that of St. Paul's,)-- $57^{\circ} 2' 17''$ N. The longitude, by the chronometers----- $170^{\circ} 10' 35''$ W.

On the 4th, at noon, we were, according to a good observation, in lat. $56^{\circ} 30' 32''$, long. by the chronometers, $172^{\circ} 2' 37''$. The horizon was clear, the weather fine, and the wind blew gently from the north; the isle of St. Paul's was now sixty miles from us, and we looked in vain for a new island, which could not have escaped us, if it really existed. I followed the same direction till five o'clock in the evening, when, as we still saw no land, I made straight for the east point of St. Lawrence Island.

On the 10th, we cast anchor within two miles of a village, which we perceived on the coast of St. Lawrence Island, in four fathoms and a half, on a stony bottom. We lowered two boats, in order to go on shore; at this moment we saw, through our glasses, several people, loaded with luggage, hastening from their dwellings towards the hills, whilst others armed themselves with lances. When we approached the landing-place, we found twenty tall, stout men, who looked at us fearfully but cordially, without stirring. They strongly resembled the inhabitants of the west point, and, when I saw how much our arrival frightened them, I declined visiting their habitations, and contented myself with trying the skill of our interpreters, who only made themselves understood with difficulty. We,

however, learned that they are in trade with the Tschuktschi, from whom they exchanged tobacco, iron, and beads, for skins. While we were conversing with them, a baydare, drawn by dogs, returned from a trading expedition from the Tschuktschi; and the people showed us some articles which they had bought of them. They call the natives of the American continent their brothers, and, as they are in constant communication with them, and also speak the same language, there appears to be no doubt, but that the natives of this place are of American origin. The eastern part of the island, on which we now were, is called by them Kealegack, and the western Tschibocka. The first question they put to our interpreters was, where we came from, and whether we had any intention of killing them; but, after we had given them some beads and tobacco, they lost their suspicion. They told me that the ice had moved only three days ago from shore. This intelligence destroyed my hopes of penetrating into Behring Strait, since I could not expect that it would be free of ice during the next fortnight. Kadu would not believe these people were human beings, on account of their fur dress; he pointed out to me the knives in their sleeves, and afterwards kept his pocket-knife in readiness, in order to defend me against any danger. Having returned to the *Rurick*, we set sail for the north point of the island. The small island, which, on Cook's chart, is drawn as one, we found, while we were sailing by, to be separated by a narrow channel. At midnight, at the moment we were dropping anchor, near the northern cape, we discovered, to our great consternation, standing ice, reaching as far as the eye could reach to N.E. and N. At the same time, my health, which from Unalaska had gradually declined, received an additional shock. The cold air so attacked my chest, that I lost my breath, and at last had spasms, and fainting fits, and began to spit blood. I now perceived, for the first time, that my situation was more dangerous, and my physician positively declared to me, that I could not remain near the ice. It cost me a painful struggle before I could resolve on returning, and nothing but the consciousness of having fulfilled my duty, could support me in this severe trial. I informed the crew in writing, that my illness compelled me to return to Unalaska. The moment of signing this paper, was the most painful in my life, for, with this writing, I gave up a long cherished wish of my heart.

From St. Lawrence Island to Guaham.—During our voyage to Unalaska, where we arrived on the 22d, nothing remarkable occurred, except, that we ran upon a sleeping whale, by which the ship received so great a shock, that, lying in bed in

the cabin, I thought that we had run on a shoal. The whale, in his first fright, made a violent leap, and then darted to the bottom. In Unalaska we found every thing in blossom. I lived on shore, and recovered health in some degree. We employed ourselves here with baking biscuit of bad flour; our ship being too small to hold provisions for two years, we had for the last six months been reduced to half-allowances, and, notwithstanding this economy, our stock would not have lasted above three months more. We had taken a large quantity of dried stock-fish from Unalaska, which, on our voyage towards the north, served in some measure to replace the want of biscuit; the officer's table was as scantily served as that of the sailors, and our only change consisted in having the stock-fish at one time as a pudding, at another with a sauce. The greatest treat was when it was served with syrup, although the fourth part of this consisted of sea-water. We obtained it at Unalaska and St. Paul's, from the agent, to whom it had been brought from China, in United States bottoms. We could not learn who it was that mixed sea-water with the syrup; undoubtedly he found his advantage in it, but we suffered from it by swellings of the stomach. Our want of provisions, and the state of our ship, brought me to the resolution to go straight to Manilla; but, to make this course advantageous, I intended to touch on the Sandwich Islands, for the purpose of taking plants and domestic animals from thence, and leaving them in Radack. Before leaving Unalaska, I will communicate what I heard from Mr. Kriukoff, respecting the appearance of the new island, as he had witnessed this phenomenon personally.

On the 7th of May, 1796, he arrived with some hunters on the northern point of Umnack, east of Unalaska, having chosen this spot as a resting place after a wearisome excursion. They intended to continue their voyage on the next day in their large baydare to Unalaska, but were frustrated in this design by a violent storm from N.W., accompanied by rain. This storm continued to the 8th, when the weather cleared up; and they in the N.W. saw, some miles from shore, a column of smoke rising from the sea; towards the evening, they perceived beneath the smoke a black object, which rose but little above the surface; during the night fire rose in this direction, frequently so high, and in such flames, that they could distinguish every object on the spot, where they were, although it was ten miles off. Their island was shook by an earthquake, and they heard a terrible noise proceeding from the mountains in the south. (It seems in fact, that all the Alioutskan Islands are of a volcanic origin; they chiefly consist of conical hills, some of which exceed the Peak of Teneriffe in height; for-

merly all of them emitted flames, and some even now.) Our poor hunters were in great fear; the rising island threw stones among them, and they anticipated speedy destruction. At sun-rise the shocks ceased, the fire diminished, and they distinctly saw an island, which had the form of a black pointed cap. When Mr. K. visited Umnack again, after a month's time, the new island, which, in the interval, still continued throwing up fire, was found to have increased considerably in height. Since that time it emitted only a little fire, but great quantities of smoke; it had increased in size and height, and frequently varied in shape. After four years' time the smoke disappeared, and after eight years (1804,) the hunters began to resort there again, as they found that it had become the haunt of great numbers of sea-lions. The water round the island was found warm, and the island itself, in some parts, so hot, that no one could step upon it. To this very moment the island is said to increase in height and circumference. An intelligent Russian, who had been there, told me, that it was two miles and a half in circumference, and 350 feet high; for three miles around it, the sea is covered with stones; from the middle to the top he found the island warm, and he thought that the smoke issuing from the crater, had a pleasant smell. About 100 fathoms north of this island, is a column of rock of considerable height, which is mentioned by Cook; at some distance, he took it for a ship under sail. This rock has likewise been seen by our navigator Saritschef, which has occupied this spot for ages; but now we know from experience, that it is connected, under water, with the isle of Unimack.

On the 18th, at ten o'clock A.M. we left Unalaska for the third time. Kadu, who was very much pleased, when he heard that we were going to Radack, immediately set about forming a collection of rusty nails and other pieces of old iron; on shore he picked up every stone he thought fit for grinding, and, in short, did every thing in his power, to benefit his friends. Still he had no intention of staying there; Petersburg had too many attractions for him. The large quantity of iron which we carried as ballast in our ship, appeared to him a sign of immense wealth; and he would not believe his own eyes, when he saw it unloaded in Unalaska. I left part of this iron for the Company, who were in great want of it; I also supplied them with tobacco, an article of the utmost value to them, since the Alioutskans will not exert themselves, without having some of this herb to chew. On the other hand, I undertook to carry for them two hundred morse-teeth to St. Petersburg, to shew the Company my gratitude for the kind reception I had met with. In the evening, we were out of the bay, that forms the

entrance to the harbour; a great number of whales sported round our vessel, throwing themselves high in the air, and falling back with a terrible crash, which spattered the foaming water in all directions. The Alioutskans enumerate seven species of them, all of which are probably still unknown in natural history. One of these species is a beast of prey, being the size of the largest whale, and has, what is uncommon among whales, a large mouth, full of terrible teeth; he swallows every thing he can seize hold of, and frequently pursues the Alioutskans, whose small boats, when he can overtake them, he smashes to pieces with one blow of his tail. It is even said, that lately a baydare of twenty-four oars, containing thirty people, was destroyed near Unalaska, by the blow of such a monster. Mr. Kriukof gives a curious description of a marine monster, which pursued him near Behring's Island, where he was on a hunting-expedition, and several Alioutskans affirm that they have frequently seen the animal he alludes to. It is the shape of a serpent, of a reddish colour, and enormously long; the head resembles that of the sea-lion; at the same time, two disproportionately-large eyes give it a frightful appearance. "It was fortunate," said Mr. K., "that we were so near the shore, otherwise the monster would have swallowed us; it erected its head considerably above the water, looking out for prey, and then disappeared; the head soon re-appeared, but considerably nearer; we rowed with all our strength, and were glad to reach the shore before the serpent. The sea-lions were so terrified at the sight of it, that some of them plunged into the sea, and others concealed themselves on land." The sea sometimes throws pieces of flesh on shore, which are supposed to be of this serpent, and which no animal will eat, some Alioutskans who had tasted of it, died suddenly. The Alioutskans likewise speak of a gigantic polypus: one of them once threw its long arms, which are twice as large as a strong man's arm, round the baydare of an Alioutskan, and would have pulled it to the bottom, if the man had not the presence of mind to cut with his knife through the huge arm of the polypus. This animal lies with its body on the bottom, and generally selects a spot from whence it may reach the surface with its arms. The latter incident occurred in the passage which is formed by the south point of the isle of Unimack, and the small island lying close by it, which cannot be navigated by a ship, on account of the shallows which it contains. This island, which is five miles long, and one mile broad, and very low, is not to be found in any chart, and I hope that our survey of the Alioutskan islands, as far as the west coast of Unimack, will be found correct. Owing to a N.E. wind, which

blew the whole of the 19th, we did not pass through the channel between the islands of Unimack and Akun, which is in all respects the safest passage into the ocean, till the evening of the 20th.

On the 21st, in the morning, we distinctly saw the two high mountains of Unimack and Aliaksa, the latter of which emitted large volumes of smoke. Some years ago this mountain had a strong eruption, by which its conical top fell in; the report occasioned by this fall, was so strong, that it was heard in the mountains of Unalaska like thunder, although the distance is ten miles. During this explosion, the mountain threw out a great shower of bullets, of the size of a walnut, of which I have one in my possession; their chief substances are lava and iron.

On the 23d, the wind shifted to the south. A great flock of albatrosses flew about our ship;—I thought of the idea of some eminent men, who imagine that this bird flies from the north to Cape Horn, to hatch there; common sense even will refute this opinion. The Alioutskans are in the habit of seeking their eggs on the tops of their mountains, for the purpose of eating them; they lay them generally so high, that it is but with difficulty the natives gain access to them. They shoot them in autumn, when they are fattest, with arrows; and their fat is considered as the greatest delicacy. The black albatrosses, which by many are considered as the young of the white ones, are, according to the Alioutskans, a peculiar species.

On the 10th of September, the wind at last blew again from the north. We were at noon in $40^{\circ} 10'$ latitude, and $147^{\circ} 18'$ longitude. For eighteen days we were constantly tacking in thick fog and fine rain, and often the storm was so violent, that we were obliged to use the storm-sails. When the sun again appeared, we found that our chronometers differed by 5° from the longitude of our ship's account, consequently the current had driven us, these eighteen days, all this distance to the east. The increasing warmth, as we approached the south, proved beneficial to my health.

On the 13th, in lat. $36^{\circ} 9'$, long. $148^{\circ} 9'$ I profited by a calm to lower Six's thermometer into the sea, and obtained the following results:

Temperature of the air on the surface-----	73°	00
water on the surface-----	71	90
in a depth of 25 fathoms----	57	10
100-----	52	80
300-----	44	00

Transparency of the water, thirteen fathoms.

On the 14th, in lat. $35^{\circ} 51'$, long. $147^{\circ} 38'$, there being another calm, I obtained the following results:

Temperature of the air on the surface -----	75° 00
water -----	72° 20
in a depth of 4 fathoms-----	72° 00
8	70° 90
15	68° 10
25	57° 60
50	54° 00
100	51° 00
408	42° 00

Transparency of the water, 11 fathoms.

While I was making these observations in a boat, a shark came so near to us that one of the men gave him a blow on the head; the animal took its revenge by biting through the line to which my thermometer was tied, and I lost the instrument just when I had sunk it for the first time in 500 fathoms, and very anxiously waited for the result; the line was made of whale-gut, in Unalaska.

On the 21st, in lat. $27^{\circ} 50'$, long. $152^{\circ} 27'$, three small snipes flew round the ship, and at last were lost sight of; but, although these birds seemed to announce the proximity of land, we looked out for it without success. The Spaniards place an island in this vicinity, which they call *St. Maria la Gorta*.

On the 23d, in lat. $27^{\circ} 50'$, long. $152^{\circ} 22'$, I profited by another calm to use my second and last of Six's thermometers.

Temperature of the air on the surface -----	77° 10
water -----	77° 00
in a depth of 5 fathoms ----	75° 00
10	75° 00
25	73° 70
50	67° 20
100	61° 00
200	51° 50

Transparency of the water, 16 fathoms.

On the 23d, lat. $26^{\circ} 41'$, long. $152^{\circ} 32'$, we again fell in with the N.E. trade-wind.

On the 26th, at seven o'clock A.M., we descried Mauna-roa, in Owhyhee; at sun-set we doubled the north point of the island, and at midnight we were under the wind of it, about four miles off the shore.

On the 27th, at day-break, we had a perfect calm, and were opposite Young's possession, near Tocahai Bay. A pretty young girl profited by the calm, and came beside the ship; her gesture clearly indicated her purpose, and she appeared very much vexed when she found herself unnoticed. Kadu was quite

stupified at the sight of this nymph; he accosted her in every language of which he had some knowledge, even in Russian, and, as she did not understand him, he vehemently begged me to let her come on-board, which I had good reason to refuse. He, however, threw her out all his beads, and beckoned to her as long as she remained in sight. A second boat, with five Sandwichmen, soon put him in good humour again. These savages brought us taro-root and water-melons, which they sold at a very high price, and we were informed by them that Tammeamea was just then on Owhyhee. Towards noon a gentle sea-breeze sprung up, and enabled us to advance slowly along the coast towards the south. I wished to reach Karakua Bay, where I expected to meet with the king; but, at sun-set, we were again becalmed, being yet at a considerable distance from the bay.

On the 28th, when we were near the Bay of Teiatatua, we were visited by two chiefs, who came out fishing, and recognized us as old acquaintances; they told us that Tammeamea was in the bay, and, after having succeeded in cheating us, they went off in great glee. Soon after we saw a second boat making towards us with great celerity, and we espied in it our old friend, Mr. Elliot, who, having recognized the Rurick through a telescope, followed us in great haste, as we had already passed the king's abode. We tacked about and took our course into the bay, where Tammeamea then resided for the purpose of catching bonitos. We went in Elliot's boat, which landed us at noon in the king's encampment, standing on the shore on a lava plain, where every one was exposed to the burning rays of the sun. About twenty years ago a volcanic eruption took place from a neighbouring hill; the lava ran into the sea and formed the plain, where they had pitched their straw tents scarcely large enough to contain three people. The king lives as uncomfortably as his nobility, and, if they murmur, he tells them, justly, "I am not a straw better off than you; if I leave you on your estates you will grow as fat as your pigs, and have no other thought than that of injuring your king." After having staid two months in this place, and the patience of his chiefs was properly tried, he intended to leave it in a few days for a more pleasant abode, and this intention he announced to them by saying, "Now you will know the better how to value your comforts." Just before our arrival, Tammeamea had sailed out to fish, and, in the mean time, Elliot took us to his wives, who were sitting in the middle of the camp upon fine matting, under a screen of white sail-cloth, trying to cool themselves by eating water-melons. They were very glad to see us again; and Kahumanna made me sit down by her side,

and, after having made some general inquiries, she sent for more melons. She was so polite as to order a canaka to keep off the flies from me with a broom of red feathers; she herself cut out the inner part of a melon, and put the piece in my mouth with her own hands, in which her royal nails, three inches long, rather incommoded me. She asked me whether the favorite queen in my country was as polite to strangers as she was. I replied we had a very kind, condescending queen, and only one. This intelligence surprised her greatly, having heard that our king was a great monarch, and therefore was justified in having many wives. Kadu was an object of great curiosity; the queen was struck at the size of his ear-laps, and examined them closely. The people on hearing that he was from a newly-discovered island, collected round him in crowds; several chiefs, and even the queen, made him liberal presents; at first he looked rather timid, yet he was highly pleased, particularly when two young girls took hold of him and led him about the camp. It was about sun-set when the king returned from his fishing expedition, which he carried on with hooks, at some distance from shore. Without taking time to dress himself, he came up to me naked, and shook me by the hand most heartily; one of the ministers dragged a couple of bonitos behind him, and the king said, ordering one to be laid at my feet, "This fish I hooked myself, and beg you to accept it as a testimony of my friendship." His wardrobe was then brought, consisting of a shirt, a pair of old velveteen breeches, a red waistcoat, and a black cravat; and he dressed himself without ceremony in my presence. His embroidered uniform he only wears on solemn occasions, and then very reluctantly. Once he said to Elliot, "The uniforms which King George (it is thus he calls the king of England) sent me are certainly very dazzling, but they are of no use to me, for Tammeamea outshines every thing!" While he was dressing I perceived that he had several wounds about his body, and, on asking in what campaigns he received them, he replied, pointing to the N.W., "I have conquered those islands, and the scars prove that I deserve to be king of the whole cluster." When he was dressed, he sat down near his house on a mat, under the open sky; another mat was spread out for me; and, while he continued smearing paste in his mouth, he entertained us with an account of taking the bonitos. He seemed much interested in Kadu, who felt the greatest respect for him, and whom he considered as the first tamon in the world. Having no time to lose, I immediately spoke about the provisions which I wished to take in Wahu. The king replied, "I cannot transact any such business with you to-day, my son Lio Lio having had a dream last night, which forebodes misfor-

tunes. The dog of all dogs swallowed in his dream the queen Kahumanna, and threw her out again as a horrible monster, which immediately set about ravaging the country; I therefore must believe that to-day you are the harbinger of misfortune." I, however, assured the king that our ship concealed no such monster as the dog of all dogs had emitted, but that, on the contrary, he had not a more sincere friend than myself; and, after much persuasion, I succeeded in being despatched the same day. One of the chiefs, Kareimoku, a relation of the governors of Wahu, was made to sit down on the ground to receive his commands, which were, that we should have the same quantity of provisions as we had had last year, and to receive us in the same friendly manner: then, addressing himself to me, he said, "Now you may proceed on to Wahu; take this chief with you, and he will supply all your wants; I require no payment for my provisions, but, if you have any iron to spare, you will oblige me with it, for I want it in building my ships." I willingly made this promise, and hastened to take my leave. Our attendant, young Kareimoku, behaved very respectfully; two kanakas who he had to wait on him shewed that he was of a high rank. We advanced but slowly, owing to the weakness of the wind, and were a whole day becalmed near the Isle of Ranai. Ships ought not to come too near this island under the wind, as the trade-wind, intercepted by its high land, cannot act here.

On the 1st of October, at five o'clock P.M., we at last reached the anchorage of Hana-rura. Soon after, a brig under American colours anchored by the side of us; the ship, which actually belonged to that nation, had been hired by Baranof, in Sitka, for the purpose of carrying a cargo of fur to Ochotzk, and was now returning, having discharged her cargo. I soon went on-shore, whither my attendant had already preceded me in a canoe belonging to some of the natives. We found the harbour in a lively state; eight ships were lying here, six of which carried American colours, and one Tammeamea's; the eighth belonged to the Russo-American company, and lay upon the shore. When I approached this flotilla, the Americans gave a salute with their guns, a mark of politeness shewn to me as the commander of a Russian man-of-war. On landing I was politely received by the captains, and accompanied to Kareimoku's house, who was very well pleased to see me again. Even from a distance he welcomed me, by exclaiming *aroah*; three shots were fired from the fort, and at every shot he pressed my hand and repeated his *aroah*. He intimated to me, by Mr. Young, that he had already received the king's orders, but, even without them, he would have provided for me every thing.

I begged for some boats to tow me in, but the American captains kindly offered me the loan of their boats, which they promised to send the next morning.

On the 2d, at day-break, according to the custom of the place, I fired a gun, and soon after the boats appeared, which brought us to anchor on the same spot where we had lain last year.

We had scarcely arrived when Kareimoku, accompanied by Mr. Young, appeared on-board, followed by a large boat, loaded with vegetables, fruit, and a large pig. I received him with three shots; the fort saluted with seven, and I answered by an equal number. The governor informed me, with great glee, that Dr. Scheffer had lately been driven from the Isle of Otuwhy by the king and the people, and had recently arrived here with his people, consisting of one hundred Alioutskans and some Russians, in the ship Kodiack, which now lay on the shore. The ship was in so shattered a condition that the crew, during the whole of their navigation from Otuwhy to Wahu, were obliged to pump to keep her from sinking, and, on reaching the harbour, were obliged to let her run on-shore. Kareimoku told me that he had received the fugitives well, because he would not return evil for evil. Even Scheffer had been permitted to embark on-board an American ship, which, but a few days before our arrival, had sailed for Canton. Kareimoku had scarcely finished his narrative, when Mr. Taracanof, agent to the Russo-American Company, with some other officers of that establishment, came on-board. He had been placed under the orders of Scheffer, whose conduct in Otuwyh he censured, and he wondered that, in their flight from the island, only three of their people had been killed, as it was entirely in the power of Tamary, who considered them all as his greatest enemies, to destroy many more. He was now here with his people in the most melancholy situation, being without provisions, for want of money. Happily I had such a quantity of stock-fish on-board that I could supply these poor people with provisions for a month. Taraconaf had entered in an agreement with Mr. Hebet, the owner of two vessels that lay here, to keep the Alioutskans for a whole year in board and cloathing, on condition that he might take them to the islands on the coast of California, where they were to be employed in the catching of sea-otters; after the lapse of the period, the American is to take them back to Sitka, and to give the company half the produce of the skins. In this manner the company frequently lets out the Alioutskans; and these wretched people will remain the victims of tyranny as long as the company remains under the control of a monster, who purchases every advantage with the blood of his fellow-creatures.

On the 6th of October the American brig Boston came in; after having doubled Cape Horn, she had touched upon Sitka, and was now on her voyage to Canton. We purchased some biscuit from her.

Kadu had acquired several friends in this country, where many objects engaged his attention: one day he was particularly terrified by seeing a man on horse-back, whom he took for a large monster. The natives took pleasure in instructing him, and, as he took a particular interest in agriculture, I entertained hopes that he would become useful to the people of Radack.

On the 8th the captain of an American schooner struck a bargain with Kareimoku about a cargo of sandal, for which he gave him a ship lined with copper; a circumstance which shews how dearly the Americans sell this wood in China. Several ships that lay here, paid for this wood with goods or piastres, which it is delivered to them by the weight in the governor's presence. I took a walk every evening on shore, which may be done in perfect security, for, although drunken people are often met with, it is just in this situation that they are merry and pleasant. They intoxicate themselves with the Awa-root, which is prepared in the same manner as on the other South-sea Islands, with the difference that old women only chew the root, and the young merely spit in it, to thin the paste. The unwholesomeness of this root is evident from the many sores with which the people are covered. The rich people intoxicate themselves with rum, which they purchase from the Americans. Since the introduction of spirituous liquors and tobacco, together with several diseases, by the Europeans, the population of these islands has perceptibly decreased; many fields, too, are lying uncultivated, as the natives are compelled to cut sandalwood. On my road to the plantations, I met with two boys carrying large bundles of bananas, and, after every hundred paces, they stopped, in order to call the attention of the passengers. The men immediately threw themselves on the ground, covered their faces with their hands, and did not rise till the boys had passed by; the women were even compelled to undress themselves at the sight of the boys. I was told that this evening a great *tabu* (taboo) was to begin, the bananas were being carried to the murai, where they were to be sacrificed to the gods; therefore this kind of submission was shewn to the bearers of the holy fruit. On passing by the house of a great chief I found him sitting outside the door, with some others, waiting for sun-set to repair to the murai; he addressed me in a very friendly manner, but warned me against touching him, lest I should become *tabu* by it, and be obliged to go into the murai.

During this dangerous time the women must not appear before their husbands, and, if one should be so unfortunate as to touch him, she is punished by death. I even saw the corpse of a woman swimming about the harbour, which was thrown at with stones by adults and children, and I was told that she had infringed a *tabu*.

On the 11th, I was attracted towards the *murai* by the hollow sound of a drum; but, thinking that admission was prohibited, I stopped at some distance. This being no *tabu*-day, I supposed that the persons engaged in it were priests. Two Sandwich men came towards me, addressing me with the words, *Aroha Jeri nue* (be welcome great chief), and invited me to enter. I was rather surprised when I obtained this permission, and was a little fearful that the priests might take a fancy to sacrifice me to their gods, and, on entering through the holy gate, I resolved to be at least upon my guard. As this *murai* was built in great haste, after the destruction of the old one, it could give me no correct idea of their sanctuary; I only found here a piece of ground of about fifty square fathoms, paved in with bamboo: in the middle of this place, six small houses, standing close by each other, formed a semi-circle; each of these chapels was surrounded by a bamboo-enclosure over which the colossal heads of the gods appeared, like sentinels. The immense necks, supporting these heads, were hung with *pore*, and some of them only retained the skeleton of a rotten pig. Although annoyed by the stench, and inclined to smile at the sight of these idols, I refrained from noticing them: my surprise was therefore the greater, when the priests themselves called my attention to the caricatures, handling their noses and eyes, and trying to imitate their distorted faces, and at the same time heartily laughing at their own wit. Near one of the cottages stood two rudely-finished statues, representing a man and a woman; between them a pole was driven in the ground, the top of which was hung with *bananas*. Both extended their arms towards the fruit; which reminded me of Adam and Eve, but unfortunately I had no one near me that could afford me an explanation of the allegory. The priests gave me to understand that the two statues, who held their mouths wide open, had them filled with human teeth. One of the small chapels was laid round with matting; from this issued the sound of a drum, frequently interrupted by the pitiful groans of a human being; and the whole made such a sad impression upon me, that I felt happy when I left the place. On my return I met with a large company of ladies, sitting before a house, round a fire, before which a dog was roasting. They invited me to participate in their feast, for which, however, I had no leisure. The women in these

islands, who are prohibited from eating pork, indemnify themselves with the flesh of dogs, which are fed for that purpose with fruit only. There is a peculiarity in these dogs, which seems to belong to the species of our terriers, that they never attach themselves to men, and are therefore kept among the pigs.

I intended to have sailed on the 13th, but Kareimoku, who had to perform a tabu that day, begged me to stay till it was over, as he wished to accompany me; besides, he represented that I should have nothing but misfortune, if I sailed during a tabu. As he had always been very kind to me, I consented to his request, and in the mean time the ship was put in trim, and we took in all the provisions, together with a great stock of animals, such as goats, pigs, dogs, cats, pigeons, &c.

On the 14th of Oct., at sun-rise, I was ready to leave the port, and the American captains kindly sent their boats again to tow me out. Kareimoku, who was just coming from the *murai*, told me that, on his urgent request, the gods had promised they would protect us on our voyage, that we might come into our country with whole heads and sound feet, and he doubted not for a moment but that we should have a prosperous voyage. He brought us water-melons and fish from his tank, and, behaved altogether much more friendly to us than to the captains of the merchantmen, to whom he conducted himself haughtily. On parting, I made him a present of a portrait of Tammeamea, and he left me with a hearty shake of the hand, again recommending me to his gods. Young Kareimoku received the presents for the king, and shouted with joy when he put on one of my embroidered uniforms, of which I had made him a present. Soon after our friends had left us, we hoisted all our sails, and with a brisk land-breeze, sailed S.W. by W. in the direction of Radack.

On the 20th we saw several snipes; by our calculation we could not be far from the Cornwallis Islands, our lat. at noon being $16^{\circ} 45' 12''$ N. and our longitude, by the chronometers, $169^{\circ} 16' 37''$. I continued my course to west, a few miles farther north than I had gone last year, because I thought that the islands could not be so much to the south as they are on Arrow-smith's chart. At two o'clock P.M. land was seen at a distance of thirteen miles in W. by N. $\frac{1}{2}$ W. What we saw was only a small round hillock; an hour later, at a distance of eight miles, we saw that this hillock formed the northern part of a low island, the whole circumference of which might be about a mile. One mile north of this island, a second was seen, which was as low and still smaller. While engaged in surveying them, we almost ran upon a rock, which, dazzled by the

sun, we had not perceived till we had passed over. It was five miles from land, the rock was scarcely two fathoms under the water, and close by it the sea was bottomless. Probably it was the point of a coral-bank, with which, as we judged from the surf which we afterwards saw in N. and E., the islands seem to be surrounded; and we found it impossible to get near them on either side: with the glass I could clearly distinguish that they consisted of barren rocks; on the hill which we had seen first, I distinguished a white spot. Towards the evening I left this place, taking a southerly course. We found the latitude of the hill $16^{\circ} 45' 36''$, longitude, by the chronometers, $169^{\circ} 39' 21''$ W. Variation of the needle $9^{\circ} 47'$ E.

On the 21st, we saw several ducks flying from N.W. to S.E. According to Anson's chart, we were in the vicinity of Basso de la Villa Lobos. Arrowsmith's chart gives no bank in this vicinity, but we have reason to believe that there is one about this spot.

On the 30th, at eight o'clock A.M. we descried the isle of Ormed, belonging to Otdia. Kadu's joy at the sight of it was indescribable, and he could not conceive how we had found these islands again, after so long a navigation. The wind, which during the whole voyage had blown from E. and E.N.E. suddenly shifted to S.E. an uncommon occurrence between the tropics. Five miles W. from Otdia, we were overtaken by a heavy fall of rain, and a violent wind compelled us to furl the topsails. The wind was too high to stand out in the open sea, and drove us towards the reefs, when one puff of wind, which came upon us with the fury of a hurricane, would inevitably have thrown the mast overboard, had we not quickly taken in all our sails. These puffs of wind, together with the rain, lasted above an hour, and we already saw the breakers near us, against which our ship must have been wrecked, had not the fury of the wind abated. During the most dangerous time, a whale sported near our vessel, and seemed impatiently to wait for our destruction. It was one of the species with large-teeth, called by the Alioutskans, *plawun*; the usual haunts of which are only in the north. The adverse weather had no influence on the barometer. After a few hours the wind again settled in the east, still continuing violent through the night, during which we kept tacking in sight of the land.

On the 31st, we reached Schischmareff Strait at ten o'clock A.M. In a boat, which we overtook, we recognized our old friend Lagediack, who in his joy made the most ludicrous gestures, and repeatedly exclaiming, *Aidara, Totabu, Tamisso, Timaro!* As we were sailing with all our canvass, he could not come on-board; he, therefore, took his course to Otdia,

whither he invited us to follow him. Kadu intended to keep himself concealed from his friends in the canoe, and to surprise them on-shore; but his violent joy overthrew all his plans: they were scarcely near enough to be spoken to, when he suddenly started in sight of them, exclaiming, Look here! I am Kadu; do you still know me? He then entered into a lively conversation with them, which frequently drew forth their O—h! At five o'clock we dropped our anchor, near Otdia, on the same spot where we had laid before. Immediately Lagediack, accompanied by some people whom we had not seen before, came loaded with cocoa-nuts; when he appeared upon deck he entirely gave himself up to his expressions of joy, danced and sang, and embraced us one after the other; at last he took a fresh wreath of flowers from his head and put it on mine, at the same time calling out repeatedly, *Aidara*. His companions, although strangers to us, imitated him in every movement. When he became a little more calm, he made Kadu sit down in a circle, which he and his companions formed round him, and immediately Kadu began his narrative, his eyes sparkling with joy, while the countenances of his auditors expressed the feeling which his verbose discourse inspired. At last we interrupted the orator, who was already foaming at the mouth, as we wished to have some account of what had passed on the islands during our absence. I wondered Rarick did not come to see us, and was informed of the following circumstances: A few days after we had left the cluster Aur, the old chief Lebeuliet went to Otdia, where he compelled the people to give up to him part of the iron which I had left with them, and, after having taken from Goat Island the only three goats that were yet alive, he sailed back to Aur. Some months after, Lamary arrived with his fleet from Udirick, and took from them all that was left of our presents. I asked Lagediack why they did not resist this unjust proceeding? to which he replied: then Lamary would have killed every one of us. The king stayed here two months, in order to supply his army with *mogan*; and, when he left, he took away with him most of their bread-fruit and cocoa-nuts, of which he only left so much as was necessary for the bare existence of the inhabitants. Rarick, Langin, and several others of our acquaintance, had accompanied him, and none but women, children, and a few old men, in all not above fifteen individuals, were left behind. The army was now collected in Mediuro; but it had not come to a battle, as Lamary waited for the enemy's attack; it was, however, said to be his intention to attack them, if this should not take place soon. I inquired about the garden, and was told that the rats had destroyed every thing, except a few

roots, which came on very well, till the great rat, as he called Lamary, took them away. I regretted this circumstance, but hoped that our plantations had better success in the other islands. I now shewed them the various plants and animals I had brought for them, which gave them much satisfaction, particularly Lagediack, who embraced me repeatedly. The orange-trees, vines, potatoes, yams, and taro-roots, were in excellent condition. The pigs which we had left here had died, probably from want of water.

On the 1st of November the plants and roots were taken on-shore, the old garden dug again, and Mr. Chamisso planted almost every thing himself. All the natives were present, to be instructed in the manner of cultivating each plant, and Kadu performed the office of interpreter. He was, however, so taken up with his own adventures, which he wished to relate, that I was at last obliged to desire him to be silent. In order to make the natives acquainted with the taste of the various roots, I had brought some of each boiled; they liked every one of them, particularly the potatoes, of which I left them a large supply. I delighted in the idea that these good-natured people might one day be indebted to me for their prosperity; that, when these islands should once abundantly supply their inhabitants with potatoes, yams, and taro, the cruel practice of destroying their children would cease, and perhaps their wars, (which, for the most part, are undertaken from scarcity of food,) would become less frequent. Some water-melons, which I had still left, were so much relished by them, that they wanted some of the seeds, which I gave them with pleasure; and Lagediack immediately resolved to raise a garden upon pillars, to secure it against the depredations of the rats. Three cats and five goats were also landed, and placed under the care of Lagediack. The cats in particular excited the admiration of the assembled natives, when, immediately on being put on land, they caught some rats, which, unacquainted with their danger, ran under their paws. Besides these, I made Lagediack a present of two hens and a cock. I remained on-shore, during the night, with Mr. Chamisso and Kadu. In the evening, when we had finished the garden, we sat down on the turf, surrounded by the natives, who tried to amuse us with drumming and singing. During our absence they had composed songs in honor of us, which they now sang; that on Totabu made the beginning, then followed Timaro, Tamisso, &c. During supper, Kadu explained to them the use of the various utensils, and probably spoke very wittily on the subject, for they laughed immoderately. During the nine months he had been with us, his mind had been improved in such a degree that he could not help feeling his superi-

erity; still he liked the company of his old associates, instructed them kindly, made presents to their children, and in many other instances endeared himself to them. Although very proud of his European dress, he immediately took them off, particularly his shoes and boots, to which they were most averse; his treasures he had soon divided among them. Lagediack sat by my side, and ate his supper with an excellent appetite. A plate with boiled yams and potatoes went round among the spectators, who took them out with their long nails. Kadu exhorted them to take care of the roots which we had laid in the ground, if they wished to have some in future; he felt much amused when one of the natives shewed him a boiled yam, saying that he would not eat it, but plant it the next day. He thought the Radackans were yet rather stupid. They liked the pork, but, on a glass of wine being sent round, they only touched it with their lips. Kadu called them fools, who did not know what was good, and invited them to follow his example, as that of an experienced man, on which he emptied his glass in one draught. After supper they again sang and beat their drums; and, when Kadu began dancing in the European manner, he excited great laughter, and Lagediack said that our dances made it appear as if we had lost our senses. I asked the latter afterwards whether he knew the chain of Ralick, as he had never told me of it; to which he answered that he had been there frequently. I again perceived how difficult it is to obtain such information from savages, without perfectly understanding their language. They never give any information on their own accord, but merely answer questions, supposing that, being so superior to them in intellect, we know every thing without their assistance. Lagediack told me that, on sailing from Eregup to the S.W. I should meet with the cluster Odja, (not Otdia,) which in size, as well as in population, he said, surpassed all the others. A tradition says, that a long time back a ship had been in Odja, where she left much iron. I spent an uncomfortable night: on account of the heat, I could not cover myself; and the rats and lizards were amusing themselves upon my body.

On the 2d we were visited by the old chief of Ormed, who was as pleased as a child on seeing us again, and made us bitter reproaches for not having anchored near his island, as he was now the chief of the whole group; the kind-hearted old man, as generous as ever, notwithstanding the scarcity occasioned by Lamary, brought me bread-fruit and cocoa-nuts. Kadu had formerly resided a long time in Ormed, where he had experienced many paternal kindnesses from the old chief; and their joy on seeing each other again was truly moving. He accom-

panied the old chief to Ormed, together with Mr. Chamisso, where they intended to sow several seeds, and stay for the night. In the afternoon I nailed a plate of copper (with the date and name of our ship engraved upon it,) on a cocoa-nut tree, opposite to Lagediack's dwelling. He promised to take care of this memorial, but he could not comprehend how we could sail away with the Rurick while her name was nailed to the tree.

On the 3d Mr. Chamisso returned with Kadu, and I was disagreeably surprised by the intelligence, that the latter intended to remain here, having but the day before solemnly declared that he would follow us. The cause of this sudden change was, the account he had received of his little son, in Aur, being very desirous of seeing him, running daily about the wood, seeking him, and having no rest on account of his absence. This intelligence touched his paternal heart; but yet he seemed irresolute, when he related the circumstance to me in great emotion. When he found that I too, although reluctantly, approved of his plan, he resolved to carry it into execution, and promised to take care of our plants, which he called after our names; future navigators, therefore, instead of yams, taro, and potatoes, will find here *timaros*, *tamissos*, and *totabus*. Every one on-board wished to hear from his own mouth whether he would actually leave us, and he repeated to every one how his son was calling Kadu! in the woods, and had no sleep at night. I felt it painful to separate myself from him, and, as we intended to sail the next day, every one on-board collected presents for him. He looked at his treasures with silent astonishment, and seemed to be afraid that the Radackans would rob him; I myself did not doubt but that Lamary would take away the greater part of it, and therefore left several considerable presents for him; nor were the old chief of Ormed and Lagediack forgotten. Kadu having taken a tender farewell of all on-board, Mr. Chamisso and I went on-shore with him, taking, at the same time, some pigs and dogs, which were to remain under his care. His treasures were taken to Rarick's dwelling, where he concealed them, while the natives, who contemplated them with great delight, were probably plotting how to deprive him of them. In order to protect him as much as possible, I wished to address the savages: Lagediack immediately dispatched two criers, who ran through the island to announce his orders to assemble; drums were beaten, and the whole of the population soon collected. They were informed that Kadu was to stay on the island, and that I wished to communicate with them on the subject; the people formed a circle round me and Mr. Chamisso in great expectation. In the mean time Kadu dressed himself in Rarick's house, probably in order to make a strong

impression upon the natives on this solemn occasion. After some time he proceeded, with regular strides, out of the house; he had put on a white shirt, over which was buckled a sword and belt; he wore a straw hat, and carried his drawn sword in his hand. The natives were amazed when he entered the circle, with a serious countenance and the murderous weapon, and gravely sat down on the trunk of a tree. It was now dusk, and Kadu delivered the following speech, which we had taught him. I must, however, observe, that Kadu, from what he had heard of us, had formed a very great idea of the "*Tamon Russia*," of whom he had spoken very highly to the natives. "The great tamon of all tamons," said he, "of the country of Russia, has commanded Kadu to stay here and take care of the plants and animals which the Russians have left. In this occupation no one is to molest him, under pain of death; but the inhabitants are to assist him in cultivating the ground, for which they are to be recompensed, although the promised reward would spring from the labour itself." (For the purpose of giving more importance to the speech, I supplied the following falsehoods:) "In ten months hence a large Russian ship will come here to bring the natives iron and other necessary articles; but, if it is found that the plantations have been destroyed, the depredators will be put to death. No one shall attempt to rob Kadu or do him any injury, a crime, which is also to be punished with death." In conclusion, a reward was promised to those who should bring any of the newly-cultivated vegetables to the ship expected from Russia. Kadu delivered his speech with great dignity; the islanders promised punctually to fulfil our commands, and I had, in order to make them perceive the full extent of my power, left orders on-board to fire, upon a signal, two guns, and throw up a rocket. It was now quite dark, I bade the islanders look at the ship, in order to see the fire with which we might destroy them, in case of disobedience; the signal was given, the guns roared, and the poor savages were panic-struck; the rocket, however, which was hissing through the air, and illuminated all the island, inspired them with still greater fear: Lagediack embraced me with both hands, and begged me to put a stop to this frightful scene; Kadu was much pleased with the impression that had been made, and now thought himself secure against any depredation. Some presents which I made to the natives restored their confidence; we gave Kadu two copper medals, with the emperor's portrait, one of which he was to wear himself, and to give the other, in my name, to Lamary. He resolved to bury some of his property, and to go with the remainder to his old friend in Ormed. When we parted, Kadu wept like a child, and earnestly entreated us to

come back again; the lamentations of the natives at our departure were general. Lagediack kept close by my side, and frequently asked whether we should certainly come back? Men, women, and children, accompanied us to the boat; Kadu led the van with a drawn sword, and burning splinters, with which they lighted the way, gave a solemn appearance to the procession. After we had pushed from shore, they all sat down upon it and sang a song, in which our names were frequently mentioned.

On the 4th, at day-break, we weighed anchor, and left this cluster of islands, with the consciousness of having done much good. We recognized, through the glass, Kadu, in his white shirt, sitting with some others before Rarick's house, and waving his handkerchief to us as long as we could distinguish him. We steered N.W. by W. $\frac{1}{2}$ W., in order to discover the cluster Ligiep, which, according to the account of the natives, lay in that direction. We advanced but slowly, owing to the weakness of the wind, and on the 5th, at seven o'clock A.M., we discovered the cluster, consisting of a number of small low islands. At noon they lay three miles and a half from us, in the N.W. 68° , and here we were entirely becalmed; the ship no longer obeyed the helm, and a strong current setting from the west drove us towards the land. Our ship was scarcely a mile from the breakers, and we were just about to lower the boats to tow her back, when a slight northerly breeze came to our assistance. The cluster of islands was smaller than the others, but otherwise entirely like them. Its greatest extent from N.E. 45° to S.W. 77° was fourteen miles and a half. We saw a boat, manned with ten persons, under sail, coming through a passage between the reefs straight towards us; when the wind failed, they took to their oars, and soon came within thirty fathoms of our ship, where they stopped. When we addressed them in their language they seemed astonished, spoke vehemently among each other, and then made quickly towards the ship, asking where we came from? From Otdia, said I. From Otdia! from Otdia! repeated they with surprise, and at last asked whether the tamon Totabu was on-board? On my introducing myself as the same, they lost all fear, tied their canoe to the ship, and quickly climbed upon deck. Lamary, who had lately been here, told them about us, and must have given a very favourable account, to have produced such implicit confidence. The Ligiepanians were tall, strong, well-made people, in which they were advantageously distinguished from the rest of the Radackians. They chiefly live upon fish, which may be the cause of their being so much stronger. Our guests had put on their best dresses, as they were perfectly new; their hair was rubbed with cocoa-nut oil, neatly tied, ornamented with strings of shells and

feathers, and, upon the whole, they seemed wealthier and more cheerful than the people of Radack. On reaching the deck, they first made us presents. A tamon, who was very much tattooed, laid some cocoa-nuts at my feet, and placed his string of shells on my head; the rest did the same to the other gentlemen, and, after a little time, they were perfectly familiar with us. The greatest object of their curiosity, as in the other islands, was the iron; but they also inquired after Kadu, and wished to know whether we had brought him back again. We made them some presents; they seemed astonished at our liberality, and, to show their gratitude, they invited us to visit them on-shore, where the handsomest *ridginis* (women) were to receive us. They pointed out a passage on the western part of the cluster, which they thought would be wide enough for our ship; but, having no intention of visiting Ligiep, I preferred questioning them respecting the chain of Ralick. Both the chain and the islands of Kwadelen they pointed out as situated towards the west, and, having received the same direction last year from the chief of Ailu, I had no doubt but that I should find the latter cluster of islands. After the islanders had stayed with us for about an hour, a brisk breeze sprang up, with which I wished to sail along the cluster towards the west, which made them leave us. At sun-set we had doubled the western part of the cluster, and then continued our course to the west, in hopes of discovering the chain of Ralick. We found the latitude of the central part of Ligiep $9^{\circ} 51' 30''$ N.; longitude, by the chronometers, $190^{\circ} 46' 30''$ W.; variation of the needle $10^{\circ} 56'$ east. I named the cluster after our worthy captain, Commodore Count *Hayden*. We continued our course to the west the whole night; it rained, and violent puffs of wind frequently compelled us to take in the sails.

On the 6th, we in vain looked out the whole day for land. Our observations at noon gave $9^{\circ} 42' 56''$ lat., and $191^{\circ} 52' 40''$ long.; thus we had kept a straight line from Ligiep, and probably had cut through the chain without observing it, a very possible circumstance with such low land. When the sun had set, without having discovered land, I gave up the search of the chain, which would have taken up too much of my time. I wanted the northern monsoon in the Chinese Sea, to reach Manilla, where the ship was to be repaired, and the same monsoon had to bring us through the Strait of Sunda. For fear that there might be other islands in this unnavigated sea besides Ralick, I came-to during the night, and continued our course, throughout the 7th, towards the west, without seeing any land. The current had carried the ship, in twenty-four hours, eighteen miles west.

On the 9th, the observed latitude being $9^{\circ} 32' 54''$, longitude, by the chronometers, $197^{\circ} 22' 24''$, we sailed over the spot where the isle *Cusbobus* and the thirty-six islands of the Spaniards are usually placed, without discovering the least sign of land. I still continued my course to the west, in hopes either of meeting with the Isle of Hogelon or of making some other discovery, as these seas, I suspect, have not yet been explored by any navigator. The water had for some days past assumed a blueish colour, and had been since 0,01 hundredth more salt than usual. During the night we had a thunder-storm, with rain, and puffs of wind.

On the 11th, lat. $9^{\circ} 19' 56''$, long. by the chronometers, $201^{\circ} 25'$, we were on the spot where Hogelon Island is said to be, but we looked in vain for it, and I venture to affirm that it does not exist. On the 11th and the 12th, several distances between the sun and moon were taken, and the longitude calculated from them perfectly agreed with that of the chronometers.

On the 13th, at noon, we found the latitude $8^{\circ} 59'$, longitude, by the chronometers, $204^{\circ} 24'$. The water still retained its unusual blue colour; I suppose that the sea from the chain of Ralick to this spot, and perhaps still farther west, is of a less depth than it is east of Radack. Six's thermometer marked the temperature of the water in the depth of the sea much colder than on the other side of Radack, as well as in all the parts of the tropics, situated under the same latitude as this.

Observations.

Temperature of the air -----	85° 0
sea at the surface -----	87° 0
in 100 fathoms -----	56° 2

Transparency of the water 13 fathoms.

Having been annoyed by calms for some days, I took my course more north, in order to reach the region of the fresh trade-wind.

On the 14th, latitude, at noon, $9^{\circ} 21'$, longitude, by the chronometers, $204^{\circ} 44'$, the calm allowed us to make the following observations:

Temperature of the air -----	84° 0
sea at the surface -----	83° 0
in 25 fathoms -----	77° 0

On the 15th we were still in a calm; the latitude at noon was $9^{\circ} 25' 48''$, and the longitude, by the chronometers, $205^{\circ} 00' 45''$. We hooked a shark, in the body of which was found a seal-skin cap, lined with cloth, which, a few days before, one of the sailors had thrown overboard to liberate himself from the sport of his companions. This cap, which had nearly the same fate as Casem's slipper, was rendered exceedingly heavy by the

grease and tar with which it was covered; nevertheless the owner declared that he would now wear it in spite of all their ridicule, and continued to do so, till one day, being at the top of the mast, it fell off his head, happily only striking the back of another man, whom, in falling from such a height, it might have killed, if it had fallen on his head; it was then thrown over-board again.

Observations.

Temperature of the air-----	85°	70
water, at the surface-----	87	40
in 15 fathoms depth-----	79	00
50 -----	59	00
69 -----	51	40
101 -----	49	50

I observed the transparency of the water with a white plate, and found that it was visible at a depth of twenty-seven fathoms; the former observations had been made with a piece of red cloth.

On the 20th, coming into $10^{\circ} 42'$, lat. and $209^{\circ} 51'$ long. by the chronometers, I saw a sudden change in the colour of the water, which now was again of a dark blue; the thermometer also marked the temperature in the depth much warmer, which confirmed my opinion respecting the difference of the depth of the sea. It is therefore possible that the ocean from the Philipines to Radack forms a step.

The temperature to-day in 86 fathoms was --- ----- $63^{\circ} 00$

On the 15th in 69 fathoms, it was ----- $51^{\circ} 40$.

Thus the temperature of the sea in 86 fathoms was 10° warmer than on the 15th in 69, whilst by the ordinary rules it ought to have been colder. We also found the water by 0,01 hundredth less salt.

On the 23d, at half-past nine o'clock A.M. we saw from the deck the southern part of the isle of Nota or Sarpane, in N.W. 68° ; the northern part of it is very low, but even the other was scarcely visible, although only at a distance of nineteen miles. At three-quarters past ten o'clock we got sight of Guaham Island, in W.S.W., at a distance of twelve miles. Sarpane may be a little higher than Guaham; the former I suppose to be about 3 or 400 toises high; at the western part of its southern point is a small low island. The lat. of this point we found $14^{\circ} 00' 58''$, long. by the chronometers, $214^{\circ} 39' 46''$. I steered my course through the middle of the strait formed by the two islands, without thinking it in any way dangerous. But I afterwards understood that in the middle of it, rather more towards Sarpane is a shoal that lies only three fathoms under water, and which appears in no chart. The Spaniards in Guaham said that, in stormy weather, the surf may be seen

rising on this bank. Sarpane presents to the eye nothing but naked rocks; Guaham, however, which we approached towards four o'clock P.M. is a beautiful spot. There is no correct map of this island; the town of Agadna I knew by description, but it was now too late to seek it, and therefore I stood out to sea for the night.

On the 24th, at day-break, I again approached the island, the south coast of which I followed towards the west, till we discovered the town of Agadna. The northern part of this island rises perpendicularly from the sea, to a moderate height, and extends in a straight line towards the south; the upper part of which is covered by a beautiful forest. At eleven o'clock we had doubled the north point, and were under the wind of the island, where the monsoon, kept off by the high land, turns almost into a calm. Gentle winds, which now and then came from the island, brought us the most delightful perfumes from it. At a distance of half a mile in the east, we had a cape, called by the natives *Tuloberspit*, from which the land keeps nearly a straight direction. The outer point of this cape is distinguishable by a cylindrical rock, rising perpendicularly from the sea. From this point the land forms a deep bay, divided into several small creeks, and here nature is truly delightful. We looked in vain for a canoe, and any human being on the shore; this land, once the abode of a happy nation, now seems to be almost uninhabited; for, since the introduction of Christianity, which in this place has not shewn its benign effects, the race of the Ladrões has been nearly extinguished. I wished to cast anchor within a quarter of a mile of *Tuloberspit*, but was prevented by the great depth and coral bottom. We now perceived a man on-shore, who was quite naked, and seemed to be of a black colour; but at the sight of the ship he ran into the forest. Soon after this we descried a large boat, which made towards us. It brought a young Englishman, named Robert Wilson, who performed the office of pilot in Agadna, and whom the governor had sent out to bring us into port. We soon saw the town of Agadna lying at the foot of a hill, forming a cape, (here called Devil's cape,) at the top of which is a fort, in which we could distinguish a small white house. Wilson told us that since Malespina had lain in Utamack bay, a new harbour had been found, where ships now find a secure anchorage. At twelve o'clock, a boat came along-side with a lieutenant, dispatched by the governor, to inquire to what nation we belonged, as they did not know our flag. He was much surprised, when he was informed of it; he behaved very politely, and left us, after having taken down my name and that of the ship. The boat

which carried the officer was very much like the canoes of Radack,—the sails, the construction, the method of managing it, and even the people in it being dark and naked, reminded us of Radack. Wilson told us, that there are several of these canoes here, which are bought of the natives of the Carolines, on account of their being made to sail quickly, and within few points of the wind. For some time past, notwithstanding the great distance, a small flotilla has annually come to Guaham, from the Carolines, to exchange shells, coral, and other trifles for iron. Kadu had often told me of Tautua, chief of Ulle, who sailed to Wagal, in order to purchase iron (called by the Carolinians, *lulu*). We now no longer doubted of the truth of Kadu's report; his Wagal was no other than Guaham, for Tautua's name was yet well remembered here. A long, narrow neck of land, named Orot, at the west point of the island, forms the entrance to the new harbour. The whole appearance is like that of Hana-rura in Wahu, and formed by coral-reefs. A small, low, well-wooded island, named Appapa, protects the harbour against the north; from this spot a coral-reef runs westward, and the external point of which, together with the cape St. Carlos de Orte, forms the entrance of the harbour, which is one mile and a quarter broad; but, as it has a dangerous bank in the middle, ships of large burden will do best to keep south of the bank, as near St. Carlos de Orte as possible, where the water is deep enough for any ship. We sailed through the northern passage, which is only five fathoms and a half deep, with a coral bottom, and came to a basin of perfectly smooth water; but, the depth being great, and the bottom rough, ships generally anchor in the inner harbour, which is one of the safest in the world. The wind being in the east, we tacked to the inner harbour, through the coral-banks, with the nature of which we had become acquainted in Radack, to the great terror of Wilson, who solemnly protested against so bold an undertaking. The entrance being very narrow, we set to work to warp the ship in, and at five o'clock P.M. we were in the middle of the harbour La Caldera de Apra. Here we found a messenger of the governor of Agadna, who, in a very polite letter, invited me and all our gentlemen to come to town; and, in the village of Piti, opposite the island of Appapa, mules were kept waiting to convey us there. Leaving the charge of coming to anchor near the fort of St. Cruz, which lies on a small island in the harbour, to my lieutenant, I went on-shore with our gentlemen and Mr. Wilson. We had to row one mile and three-quarters, winding through many shallows, to Piti, saw a two-master, belonging to the governor, at anchor, and no other ship in the harbour. Wilson, the steers-

man of the ship, told me that some years often passed without a vessel entering here. The sun was setting when we landed ; and we found the mules, together with the only horse on the island for myself, in the neighbouring village Massu. Agadnu is three miles and a half from hence, and we rode off immediately, through a paradisiacal country, whose odoriferous air had the most grateful and beneficial effects on us : indeed, the Spaniards told us, that the climate was very salubrious, and people on the island lived to a very great age.

The village Massu consists of fifteen houses, built in one line, with gardens between them. These dwellings or boxes, hanging over a space of eight or ten square feet, are raised five feet above the ground, and supported by four pillars ; the floors and walls are formed of bamboos, placed so far apart that a hand may every where be passed through, giving to the whole habitation the appearance of a cage, which need not to be entered to see what occurs inside. This construction is well adapted to the hot climate, as it allows a free current of air to cool and refresh the inmates ; the thatched roof protects them against the rain, and the pillars against the reptiles ; but the sight is particularly ludicrous when the family is within. The half-naked inhabitants of Massu kindly addressed us in the Spanish language ; a large stone cross outside of the village, and a small one about their necks, shewed that they professed the Christian faith. The inhabitants of the island are called *los Indios*, by the Spaniards ; they are all Christians, and partly descended from the natives, but chiefly from the people of Mexico and the Philippines, which were transplanted here by the Spaniards, after the extinction of the true aborigines. After having passed through two other villages, we alighted at eight o'clock before Mr. Wilson's house in Agadna. Here we adjusted our dress, and then waited upon the governor, Don Joseph Medinilla y Pineda, captain-general of the Marians or Ladrones, who received us in his uniform, with the utmost politeness. He promised to supply us with every thing the season afforded, only regretting that the season for fruit, which is very abundant, was over on this island ; and immediately gave orders to the same effect. This gentleman is the only real Spaniard on the island, all the officers, and even the clergy, being natives of Mexico or Manilla, and descended from Spanish parents. He is a very agreeable companion, and probably also a useful officer, his governorship having been renewed for him, contrary to the Spanish system, by which a governor is never left above three years in the same colony. Mr. Wilson was the interpreter between us ; I tried in vain to turn the conversation to the Marians, but the governor, like all

other Spanish governors in this part of the world, was very close on the subject, and always eluded me. His hospitality, however, was unlimited; after we had been served several times with tea and chocolate, we were led to a table covered with fruit, pastry, and the most exquisite wines: thinking this was the supper, we ate heartily; but an hour had scarcely elapsed before we were taken to the dining-room, where a most plentiful supper was prepared for us. We at first hesitated, whether it was the custom here to eat without intermission, or whether they only expected such excellent digestion from a Russian stomach, but we soon perceived that they also ate with good appetite. During supper I was introduced to the vice-governor, Don Louis de Torres; he had frequently visited the Carolines, especially the cluster Ulle, and promised to give us the observations that he had made there, in writing, a circumstance which induced me to prolong my stay on this island.

When, in 1788, the Carolineans visited Guaham with several small canoes, de Torres was here. They were well treated by him and the governor, who made them large presents, from which they were emboldened to return every year. They said that they had always been trading with the inhabitants of this island, and only left off when the white people settled here, whose cruelty they themselves had witnessed. In 1788 they made this voyage again, after a long interval, to purchase iron. They further said, that the description of the rout from Ulle to Guaham, a distance of 300 miles, was recorded in songs, after which, and the position of the stars, their pilots found their way. In 1789 they again came to Guaham; but, on their return homewards, they were overtaken by a violent storm, which buried them all in the waves, since which time de Torres waited in vain fifteen years for the return of these people, whom he loved, for their amiable disposition. In 1804 de Torres undertook a voyage to the Carolines, for the purpose of seeing his old friends, on-board the *Maria* of Boston, Capt. Ball, who, having taken in provision in Guaham, was sailing, with his super-cargo, Borman, for these islands. Their intention was to collect *Biches de mer*, a species of large snails, without shell, which are much sought after in the Chinese market. The first cluster they touched upon was Ulle, where de Torres met with some of his old friends, who assisted them in bringing the *Maria* inside the cluster, and this was the ship which Kadu had mentioned to us; the name of Borman, of which they had made Marmol, and of Lewis, as they called M. de Torres, were mentioned in some of his songs, which his countrymen had composed for the purpose of perpetuating their memory. Thus the Radackans and Carolineans have the same custom of record-

ing memorable events in songs; I am not, however, aware whether the former also make songs on their heroes, as the latter are said to do. The reason for their absenting themselves from Guaham so many years, was that, because their flotilla did not return, they imagined that all their companions had been murdered there. De Torres convinced them of their error, and they promised to come again the next year, which they did. Since that period eighteen canoes annually collect near the cluster Lamureck, from whence they take their rout to Fojo, a desert island north of Lamureck, which they reach in two days, and rest there; and in three days more reach Guaham; the whole voyage being performed in five days. They visit Guaham in April, and return in May, or, at the latest, in June, as they afterwards have to fear the violence of the S.W. monsoon. Their boats are easily upset for want of precaution, which on their voyages frequently happens twice a day; but, as they are expert swimmers and divers, it produces no other consequence but that of making them laugh heartily; they then jump into the water, turn the boat up again, and swim by the side of it, till they have thrown all the water out of it with their hands. It is rather worse, when they break the balancier, without which they cannot keep their canoes steady; however, they never undertake a voyage without meeting with such an accident, in which case they effect the repairs, which require several hours, swimming. They are often a fortnight on sea, constantly washed by the waves, without any other food than a few cocoa-nuts, as their canoes do not carry a heavy load; sea-water is their beverage. Their fleets are generally under the direction of two pilots, who are only of a low condition, but are far superior to the chiefs in knowledge, and are frequently promoted for their merit.

Some years ago, one of their fleets, being but a day's sail from Guaham, was overtaken by a violent storm, and beaten out of its track. When the storm ceased, the two pilots differed in their opinions; the one maintaining that Guaham must still be to the west of them, while the other supposed it to lie in the east. The fleet at last divided in two parties: those that sailed in the west were never again heard of; the others, after several days' labour, to gain the easterly wind, safely reached the island, and the pilot was created a *tamon*.

When the Spaniards took possession of the Marians, most of the natives fled to the Carolines. The present governor, who takes great pains to gain the confidence of the Carolineans, has proposed to them to settle on Guaham.

The governor not having room in his house, only Mr. Chamisso and I slept there; the other gentlemen met with a kind reception

by the officers of the town. The governor's house is two stories high, and quite adapted to the climate; the interior is lofty and roomy, the wall to the north containing roll-frames, which are only shut when the sun shines in; these frames are filled up with the shells of the pearl-oyster, instead of glass, which admit the light, and exclude the hot rays of the sun; the wall towards the south is without windows. Our beds were good, yet, had we not been tired by our ride, we should have been disturbed by the constant quarrels between the dogs and cats, the latter often taking refuge upon our beds. All houses here are annoyed by a species of small green lizzards, which, at night, run about the walls, whistling, and sometimes even get into the bed. Dogs and cats are very numerous both in town and country, and are much encouraged, on account of the rats, which are every where very troublesome. The dogs are used to hunt a small species of stags, which the Spaniards have brought here from the Philippines.

Nov. 25th. We were scarcely awake when the governor invited us to drink chocolate, and we were not permitted to go out and see the town, till we had taken another breakfast, resembling a dinner.

The town of Agadua, which is little more than a small village, lies in a delightful valley, a few hundred yards from shore. A small stream which runs through the place supplies the inhabitants with water; the houses, which are of the same architecture as in the village, form a regular street. There are only seven or eight houses, built of coral-stone, which belong to government, and are inhabited by the governor and other officers. At the east end of the town is a capacious church and a convent: the whole of the clergy consists of two monks, who are natives of Manilla, and are descended from the Malays. It is said here, that after regular periods of about 20 years, a violent storm arises from S.W. which swells the sea to such a height that the water inundates the whole town, and compels the inhabitants to take refuge among the hills. Only the stone houses resist the fury of the water, the bamboo cages being all destroyed. The town is defended by two forts, built of coral-stone; the one lies before it, on the sea-shore, but, as yet, has no guns; the other, situated on an eminence in the west of the town, seems to have been chiefly built for the purpose of quelling any insurrection that might take place; but, as the governor told me they are without powder on the island, both the forts seem to be useless. The town consists of two hundred houses, and contains 1500 inhabitants. There is but one married couple remaining of the aborigines, and at their death the race of the Ladronees will be extinct. The military consists of the militia, and seemed

to be in good order; the officers are natives. The men, who are obliged to provide their own clothing, had a good appearance, although a part of their small pay yet goes to the priests. If an inhabitant wishes to be married, he must give a Spanish dollar to the monk, who pays no regard to the scarcity of money which is felt here. The governor showed me some canoes that had been bought of the Carolineans, and told me of some of the feats of these people in swimming and diving. A gallion, loaded with specie, some time ago suffered shipwreck near the new harbour, when some of the Carolineans, who were here, fetched the barrels, filled with piastres from the cabin of the ship, which lay several fathoms under water; and it was even affirmed that they had remained half an hour in it.

The whole chain of the Marians is uninhabited, with the exception of Guaham; the North Americans, who are carrying on the fur trade between the N.W. coast of America and Canton, chose the islands Agrian and Saypan as resting places on this voyage. In order to find fresh provisions there, they took some families from the Sandwich Islands, whom they compelled to attend to the cultivation of the soil and breeding of cattle; and they had actually succeeded in their subsequent voyages in supplying themselves with fresh provisions without expense. The Spaniards being informed of it, soldiers were sent there, who destroyed the plantations, and carried away the poor Sandwichans, who seemed to be very comfortable in the governor's house, where I saw them, and who were pleased when I gave them some news from their country. The governor was informed that the Americans had formed another settlement at Agrian, which probably will not be suffered to exist long.

In the afternoon I parted from the governor, to return on-board. In the villages where we stopped, the inhabitants readily refreshed us with a pleasant beverage, obtained from cocoa-nut blossoms. These people have been too long subdued to show anything in their behaviour but submission. They are entirely dependant on the governor, and, although government demands no taxes from them, they are but poor. The present governor treats them with great lenity; but his predecessor was a tyrant, and they still seem to fear a relapse.

Men, women, and children, are constantly in the habit of smoking segars; at the same time, they chew betel, which dyes their teeth and lips a disgusting red. In all the Spanish possessions, government monopolizes the right of cultivating tobacco, except in Guaham, where every one has the privilege.

The natives having observed that some of our sailors wore no crosses round their necks, they were denounced by them as bad christians. Lieut. Schischmareff, during my absence, be-

gan making our provision of water on a convenient spot. In this operation, however, the following precautions are to be observed:—the boats must enter the river during high water, when the casks are immediately unloaded and floated up. They must not be filled till the ebb has carried off the salt water: on the return of the flood the boats are loaded, and leave the river again on the highest stand of the water. On the coast, where the water is taken, the bushes hang down into the sea, from which new roots spring up, which unite with the upper branches, and form together a green fence that covers the whole bank.

On the 25th, we paid a visit to the commandant of the fort Orta, at the entrance of the harbour. At the same time, the men were allowed to go on-shore, where they gathered as many oranges as they could carry. They saw in the wood, a stag, and several lizards, five feet long. Besides cats and dogs, stags are the only quadrupeds on the island; poisonous insects and serpents there are none.

On the 27th we again visited the governor. We found a great number of the natives in the town, who, there being no national dance here, performed a kind of ballet—the Reception of Cortes by Montezuma.

The 28th, our ship was well supplied with provisions, among which we had a live ox. We spent a very comfortable evening in company of the Spanish officers; and, on the morning, after having taken a grateful leave of them and the governor, who had purposely come down to the port, we heaved anchor, and at eight o'clock A.M. were out of the harbour.

We found the latitude of the harbour la

Calderona de Apra -----	18° 26' 41"	
Longitude-----	215 9 54	
Variation of the needle-----	5 34	E.

According to Marion's observation, the harbour lies in the longitude----- 216 10 00

According to Malespina, Umatak-bay lies--- 215 26 00

As the difference between Umatak-bay and the harbour of la Calderona de Apra can only be trifling, my longitude tolerably agrees with that of Malespina.

From Guaham to St. Helena.—Dec. 1st, lat. 16° 31, long. 219° 6. We saw a great number of sea-birds. Arrowsmith's chart gives in this latitude a sand-bank, which is said to have also been seen by Spanish navigators.

On the 9th, we saw Barlington's rock, seven miles due south of us; we found its long. by the chronometers, 237° 13' 30", the latitude, 19° 58' 5". We now entered the Chinese sea, and immediately perceived the change of climate; instead of the almost ever-bright sky, stormy clouds are in this region, con-

stantly tossed about by the wind, and the horizon is obscured by a permanent mist. The current had carried us to-day eighteen miles to S.E. 18° .

On the 10th, at noon, we were in $9^{\circ} 12'$, lat. and $239^{\circ} 43'$, long.; since yesterday the current had carried us twenty-six miles and a quarter to N.E. 3° . The wind blew high from E. by N. On the 11th the wind was lower, the current thirty-four miles and a half to N.E. 14° .

During the night of the 12th we doubled cape Bolinao. On the 14th, at noon, we doubled cape Capones, and now tried to reach Manilla-bay by tacking, as the wind, in this season, always blows from the bay.

On the 15th, being near Corregidor Island, we saw several telegraphs announcing our approach. At sun-set, while we were tacking between Cavalo Island and the main-land, at the entrance of the bay, we were stopped by a large boat with twenty oars, called here, *pango*; a Spanish officer came on-board, and, with great politeness, put the usual questions to us. Several of these watch-boats are stationed near the above island, chiefly for the purpose of preventing the Moors of the southern Philippines from entering the bay, as they frequently come here, plundering, murdering, and carrying away prisoners, whom they sell for slaves among themselves. The officer gave us a pilot to steer us into the bay; but he knew but little of his business. The chart of Manilla-bay, that I had by me, I found very defective, and was therefore obliged to be guided by my own knowledge of the bay, which I had collected from other sources. The St. Nicholas-shoal is the most dangerous spot, but with a little precaution may be easily avoided: we gained very little through the night; ships ought not to go so far to the north, as to get in sight of the north entrance, since, in that place, the current, which during the present season runs out very strongly, will be against them; which is the reason why ships during the N.E. monsoon can only enter through the southern passage, and leave by the northern.

On the 16th, we were still near Corregidor Island, on which we perceived a crater; probably there was formerly a volcano in this place, which, by its fall, formed several small islands and a basin.

On the 17th, at noon, having been compelled by a calm to anchor within eight miles of the city, we were met by two officers in a *pango* of sixteen oars, who welcomed us in the name of the governor. In company with Mr. Chamisso, who speaks the Spanish language, I went with the officers to the city, in order to ask the governor's permission to sail to Cavite,

where I wished to put the *Rurick* under repair. It was four o'clock when we reached the road, which, in this season, is very secure, and where eight merchantmen, under British and American colours, rode at anchor. Manilla lies on a plain, and presents, on the sea-side, a stone fortification, lined with cannon, over which the roofs of the houses and some steeples are rising. In order to land, we rowed up the river, deep enough even for large ships, but the mouth is shallow, over which the depth in full and new moon is not above fourteen feet. The river here divides in several branches, two of which, whose banks are covered with villages, run into the famous lake *Bahia*, which lies twenty miles inland. A large number of fishing-boats, manned with Chinese and Malays, were engaged upon the shallows: our attention was peculiarly attracted by some ferries that were standing there, from which, by simple machinery, a large net was thrown out by two people, and drawn back again in a few minutes full of small fish. When we had entered the river, we saw the city, on its right bank, surrounded by a well-constructed wall; on the left, lay a large village, inhabited by Malays, which, like at *Guaham*, was formed like bamboo cages. After we had landed in a fine valley, we walked in the town, between high houses, through several dirty streets, to the governor's house; *Don Fernando Mariana Fulgeras*, from whom we met with a very friendly reception, immediately granted the permission to sail to *Cavite*, whither he sent his orders respecting the repairs of the ship. At the same time he invited me to visit him frequently, and offered his assistance to *Mr. Chamisso*, if he would take a trip into the interior. An elegant carriage, with four horses, took us back to the pango, and I reached the *Rurick* at seven o'clock P.M. A gentle breeze having sprung up, we heaved anchor, and tacked through the night, in order to gain *Cavite*, which lies twenty-one miles from *Manilla*.

On the 18th we reached *Cavite*, where two merchantmen rode at anchor. The port captain, *Mr. Tobias*, on being informed of our arrival, immediately sent two boats, by the aid of which the *Rurick* was brought into the arsenal. Here she was immediately unrigged and unloaded, her contents being placed in an empty gallion, standing close by, in which, also, the sailors found comfortable quarters, while we had a house assigned to us in the town. *Mr. Tobias* accompanied me, with a shipwright, to the *Rurick*, and all the preparation for the repairs were then begun. Every thing, even to the water-casks, had become unserviceable during our long voyage. On keel-hawling the ship, she was found to be worm-eaten in some places, and the copper to be much damaged; therefore the governor

ordered her to be newly lined with copper. So small a ship as our *Rurick* has the disadvantage that the most necessary articles cannot be taken with her, and the assistance of others must be often dearly purchased. Mr. Tobias set a hundred people to work, and to his activity we are indebted for our being ready in time, notwithstanding the number at work. In the mean time I occupied myself with trying the chronometers, and copying the charts which we had made. Cavite, which is only inhabited by soldiers and labouring Malays, is a fortress, and by no means a pleasant place of residence; it is a long walk before you reach a village, the houses of which, two stories high, are built in the Chinese and Malayan style. Hither I went every evening to amuse myself with the sight of the well-lighted market, which is always held after sun-set. Hundreds of women are sitting on the ground in long rows, where they sell various kinds of eatables, fruit, &c., and the labourers from the fortress and the soldiers come here for their supper. The crowd is great, and the musical natives, who are hardly ever without their guitars, spend the evening in playing, dancing, and walking in the open air. Three miles from hence is the beautiful town *Terra Alta*, where several rich Spaniards have their country-seats, the air being considered very salubrious.

The 24th, being Christmas-eve, set the whole town of Cavite in motion; monks, with their holy images, paraded the streets, followed by the Malays in procession, and the children ran behind with lanthorns, in the shape of various beasts. Delightful music was occasionally heard, the sounds of which, however, were soon drowned by the noise of fire-works and rockets. During this night no one in Cavite goes to rest; at twelve o'clock all the bells are rung, and the people crowd to the church for prayer.

On the 25th we went to Manilla, in Mr. Tobias' sailing-boat, and were received by the governor's aid-de-camp, there being no inn in the city. The governor immediately sent us two carriages, in which we visited the beautiful country about the place, where we found a crowd of richly-dressed ladies and gentlemen promenading the favourite walks, and riding in carriages. In the forenoon we visited the beautiful environs, chiefly inhabited by wealthy Chinese, who fully understand how to cheat Christians. We dined with the governor. The higher classes only begin to stir in the evening; till then, the time is spent in sleeping, eating, and smoking, which latter is no-where carried to such excess as on the isle of *Luconia*, as children smoke their segars before they can walk. The women, not satisfied with the common segars of a small size, have some made for themselves of about twelve inches long, and a proportionate

thickness, and which are called "women's segars." Besides this, the fair sex chew betel, which becomes particularly noxious from its being wrapped up in leaves dipped in unslaked lime. Government sell the pound of tobacco at from four to five reals, and the Isle of Luconia alone produces to the crown nearly 300,000 piasters per annum; the rum, too, which they extract from cocoa-blossoms, belongs to the crown, and yields an annual revenue of 120,000 piastres. In the evening we drank chocolate with the governor, whose amiable daughters charmed us with their music and singing. We returned the next morning to Cavite by land in one of the governor's carriages, through Terra Alta. Our road was lined with cultivated fields and bamboos, which I had never before seen growing so high; the use they make of it here even extends to the building of houses and bridges. We stopped at a convent on the road, where Mr. Chamisso wished to speak to a monk, who had written a history of the Philippines.

On the 28th, immediately after my arrival, I ordered that my six Alioutskans should be vaccinated. The surgeon of the district brought on-board two children that had been vaccinated, when our physician performed the operation. The surgeons in this island are strictly commanded to vaccinate the young children in the villages every week. To-day Mr. Tobias dispatched a small rowing flotilla against the Moors, which is done twice a-year: it consisted of nine gun-boats, five of which carried each a twenty-four pounder, and the others ten-pounders; they were strongly manned, and supplied with an abundance of small arms. This fleet sails to the strait Bernardino, where it separates; one half taking its post in the strait, and the other going to the northern part of the isle of Mindano. Since the Spaniards have begun to chastise the Moors in their own haunts, their attacks on Manilla have become less frequent. We had here, with a N.E. monsoon, 23° heat in the day, and 18° at night; and, while we could scarcely endure the heat, the inhabitants at night wrapped themselves up in warm blankets, and called this their winter month. To judge by this, the heat during the south monsoons must be dreadful; in that time a great many people die suddenly by exposing themselves, while heated, to the north wind, which sometimes blows in summer. A disease that prevails here, called St. Lazaro, is the most horrible I ever witnessed. People become leprous all over the body, the limbs fall off, and the wretched sufferer preserves, under the most acute pains, his intellect to the last moment. This disease particularly predominates among the poorer classes of the natives, and is probably a consequence of filthiness and unwholesome food. One hospital in Manilla, sup-

ported by government and private subscription, is entirely filled with such patients; and a monk, who for the last twenty years has had the inspection of them, was of opinion that there was no remedy against this scourge of God, as he termed it. I observed to him that these wretched people wore dirty woollen cloth next their skins, and lived upon spoiled meat; and, when I asked him whether clean linen and wholesome food would not alleviate their condition, he replied, "that costs too much!" However idle the natives may be in work, they know very well how to cheat, and particularly strangers. Their only amusement, and which is carried on passionately, is cock-fighting, for which purpose they have trained cocks, which they always carry along with them. In every village a house is kept by government, where all cocks may fight, but only on Sundays and holidays; the spectators pay one real for their admission, but the owners of the cocks pay four reals, and all this revenue goes to the king. The pit, which no one is allowed to enter, is surrounded by two tiers of boxes: before the battle begins, the bets are deposited; each owner places his cock, which has large knives, two inches long, fixed to its legs in the pit, and the battle is often decided in the first onset, generally, however, in the third or fourth. The defeated cock is most unmercifully treated by his master, who, as a punishment, plucks out his feathers. Large sums are lost in these places, where bets are also made by the spectators; and, if one of them should lose his last shirt, he will leave the cock-pit as happy as he entered it.

On the 12th of January I again went to Manilla. During dinner, the governor related to me the following circumstance, which, he assured me, frequently took place:—A bird was in the habit of building its nest in the tail of horses, which sometimes run about the interior, without being noticed; as soon as this takes place the horse falls sick, and never recovers, even when the bird, with her young, has left his tail. The governor seemed to be convinced of the truth of this circumstance, which, from a less-informed man, I should have considered as a fable. I visited the segar manufactory, formerly a convent, in the suburbs, in which 2000 women and 350 men were employed.

On the 14th I returned to Cavite. The repairs of the *Rurick* were nearly completed, and we got ready to leave this place on the 27th. The governor had sent a girl to sit to our draughtsman, who was descended from the mountaineers in the interior. These were formerly the sole inhabitants of the Philippines, and, since they were supplanted by the Malays, led a peaceable pastoral life among the hills. They avoid the connexion with Christians, and do not wish to submit to baptism.

The 23th.—Yesterday we left Cavite, and, a few hours after,

cast anchor before Manilla. We took leave of the governor, who came to see us on-board. Capt. Guerin, of the French ship *Eglantine*, wished to follow me to the strait Sunda, as he had no chronometer on-board, and on the 29th we left the isle of Luconia together.

On the 3d of Feb. at nine o'clock A.M. we were in sight of Pulo Spata, whose longitude by the chronometers was $251^{\circ} 00' 6''$.

On the 8th, we crossed the equator in $253^{\circ} 9'$ longitude. We descried a ship, which, by her construction and sails, I recognized for a Malayan pirate. She sailed better than our ship, but kept at a distance, trying to get before the wind, to surprise us during the night. I prepared the ship for defence, and the whole crew stood prepared with lances and fire-arms, resolved to defend ourselves to the last. When it grew dark, two sailors took their stations on the bow-sprit, and at eight o'clock they called fire! It was seen a-head of us, but soon disappeared again. I ordered several of the sails to be taken in, and we advanced slowly, in perfect silence, which was suddenly interrupted by the cry of fire! fire! a sail is close at hand! I could clearly distinguish the vessel; and, if we had continued two minutes longer, we should have been boarded. The enemy only being twenty fathoms from us, we gave them a broad-side, and they instantly took another course. Thus we escaped imminent danger, and our precaution would have hardly saved us, if the pirates had not shown their light.

On the 9th, at noon, the isle Gaspar lay thirty-seven miles S.W. 8° of us. Our long. by the chronometers was $252^{\circ} 52' 40''$. We perceived a strong current setting to S.E. We anchored during the night at eight miles north of the island, in sixteen fathoms, upon a bottom of grey sand, the navigation between Pulo-loat and the isle Banco being dangerous at night. The current ran one mile and a half per hour S.E.

On the 10th we continued our course. I avoided the northern part of Pulo-loat, where, as I afterwards understood, the English frigate *Alceste* had been wrecked the year before, but we sailed close by the western point.

On the 13th, I anchored near the isle Zupften, two miles off the Sumatra-coast. North Island lay seven miles N.E. 14° of us: one mile and a half north of our anchorage, lay three small low islands, thickly covered with wood, which are not indicated in any chart. Some people in a boat were angling at a short distance, without, apparently, taking any notice of us; but I perceived they observed us attentively, and, when they approached us, as it were by chance, I threw a knife to them, which they received with a friendly nod of the head. They

gave us to understand that they would bring us a large animal from the land, and immediately disappeared between the three islands. These islanders were thin and of a dark colour, and their teeth dyed black; their heads were covered with large straw hats, of the Chinese shape, and their dress consisted of old nankeen shirts. Their boat was made of the whole stem of a tree, with a balancier. The islanders soon returned with a turtle, of an immense size, which was tied across the boat; two monkeys and some parrots were sitting on its stomach. The islanders called the turtle *curpot*; it was as much as two men could lift, and its flesh afterwards supplied the whole crew for two days. When the turtle was on-board, the donor came on deck himself, and put on a pair of very old embroidered silk breeches; he assumed a consequential air, and told me that he made me a present of the turtle, frequently repeating the word "present." Perceiving that he also expected presents, I gave him beads, knives, scissors, and other trifles; but his principal wish seemed to be to have a pistol, and powder, in his language *belbedil*. In the mean time, a second canoe, with five people in it, one of whom spoke a little Spanish and English, arrived with a cargo of monkeys and turtles, but which they would only sell for piasters, pistols and powder. We bought some monkeys, one of which our scientific gentlemen declared to be of a species unknown in natural history. They also sold us fowls, and we might have obtained an abundant supply of provisions, had we stayed here a few days.

On the 14th, at seven o'clock A.M., we passed through the channel between Zupften Island and the current rock; but, on the other side of it, the wind was weak, and the current was carrying us rapidly towards the rocks, when suddenly a fresh breeze, springing up, brought us out of our dangerous situation. The number of the Zupften Islands given in the charts is five, but we counted eight of them. I reached the strait in the afternoon; the Eglantine, which sailed very slow, being now without danger, I left her behind, and continued my course: on the 15th, in the evening, we passed through the strait.

On the 2d of March, at six o'clock P.M. in lat. $22^{\circ} 2'$, long. $289^{\circ} 40'$, the ship was illuminated by a large fire-ball, to such a degree, that we could distinguish the objects as clearly as in the day-time; it rose east of the Pleiades, taking a perpendicular course towards the horizon; the whole duration of the phenomenon was three seconds.

On the 12th of March, being near the southern point of Madagascar, the wind suddenly shifted to the north, and the atmosphere became very chilly. At midnight we were sud-

denly becalmed, but the current carried us, as we found the next day, with the velocity of $48\frac{1}{2}$ miles in 12 hours to 72° north.

On the 17th, lat. $32^{\circ} 40'$, long. $325^{\circ} 36'$, we were assailed by a violent gust of wind, which nearly threw our masts over-board, accompanied by thunder, lightning, and rain.

On the 30th, the weather having been stormy for several days, we entered Table-bay, and came to anchor. During the night we had so violent a storm, that we were obliged to throw out a second anchor. A pilot brought us now to anchor at the usual place, and I immediately went on-shore to pay my respects to Lord Amherst, but who was then in the country.

On the 1st of April, I went on-shore to visit Lord Somerset, at his country-seat. In the evening a storm began, which became so violent that it was impossible to return to the ships, although they lay only fifty fathoms from shore.

On the 3rd, the storm still continued; and it was impossible to go out in the street. My boat in the harbour was carried away, and great damage done to the shipping. When the storm was over, I went on-board, and found the ship covered with sand, which the spray of the sea had entirely crystallized. The barometer, which here never indicates a S.E. storm, stood, when this began, upon $31^{\circ} 00'$, and during the height rose to $31^{\circ} 10'$.

On the 4th, the weather being very fine again, I visited the corvette l'Uranie, Capt. Freycenet, who lay here outward-bound, on a voyage of discovery. He had an engine on-board for distilling sea-water, to qualify it for drinking. This engine, which takes up a space of twenty feet in breadth, and ten feet in width and height, was placed in the fore-part of the hold; it produces, in one day, water enough for 130 men, during three days, and consumes but a trifling quantity of coal.

On the 5th, I dined with Lord Somerset, at his country-seat, where I became acquainted with the worthy Colonel Warre; with whom I rode the next day to Constantia. On our return, I noticed many small pretty birds, resembling the humming-bird, of which the colonel told me the following peculiarity, which he had frequently witnessed himself in his journeys to the interior. When the Hottentots follow a bee for the purpose of discovering their hive, this bird, which seems to know their intention, assists them in the chase, and indicates to them, by whistling, when he has found the hive; the Hottentots, when they have taken out the honey, regularly give the bird (which they call the honey-eater) his share of the booty.

The 13th.—On the 8th we had left Cape Town. On the

13th, in lat. $30^{\circ} 93'$, long. $345^{\circ} 33'$, I had an opportunity of making the following observations :

Temperature of the air	68° 0'
----- water on the surface	67 0
In 200 fathoms	49 5
In 50 ditto	60 8
In 25 ditto	66 0

The 21st.—From the beginning of our voyage to this day, we had sailed 360 degrees, by the meridian of Greenwich, from E. to W., and therefore lost one day. This made me advance from the 21st to the 22d, and we made Wednesday of Tuesday.

On the 25th, off St. Helena, we were fired at from the batteries, notwithstanding the assurance of an English officer from one of the guard-ships, who came on-board, that, after the signals which had been made, they had no right to do so. The officer left us, with the assurance, that, at 11 o'clock A.M. we should receive permission to enter the port ; but, having waited in vain till 12 o'clock, I struck the colours and fired a gun, for their kind reception, and stood for the Isle of Ascension.

From St. Helena to Revel.—On the 30th, at 6 o'clock, P.M. we had the Isle of Ascension $1\frac{1}{2}$ mile due west ; the chronometers gave for its longitude $14^{\circ} 22' 30''$. On the 6th of May we crossed the equator in $20^{\circ} 26'$. The current, which from St. Helena had regularly carried us S.W. now changed its direction to S.E.

On the 16th of June, we cast anchor before the town of Portsmouth. I went to London, where I had the honour of being introduced to our grand duke Nicholas and to the Prince Regent. I returned some boxes of patent beef to the inventor, as a proof how well his invention succeeded.

On the 30th, we left England ; and, on the 23d of July, I again beheld my native town, Revel.

We left this port on the 27th, and on the 3rd of August, 1818, we dropped our anchor in the Newa, opposite the house of Count Rumanzoff.

THE END.

